Role of Transportation in Urbanization of Poona (1804-1950)

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To Family

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Introduction

"It is not our wealth that builds our roads,

but it is our roads that built our wealth"[1]

- John F. Kennedy

Generally, when we talk or write about the development of modern transportation in India, we tend to give more emphasis to railways & related work. Indeed, there has been a dramatic change in the economic structure of India after the introduction of railways.

However, railways become important while travelling from province to province or from one major city to another one. Thus, railways are prominent for intercity travel but at the same time during colonial period its scope was not wider enough for inter town or intra city transportation. Hence along with railways the road networks also stand to a great importance for flourishing economic activity and enhancing the scope of towns in Poona district with their urban element.

Poona does not have access to the sea and even the rivers which flow through it are not navigable for transporting either people or goods, therefore, the road became a rather important mode of transport. Complementary role played by railways and road networks are crucial for understanding the nature and pace of urban growth in Poona.

The interrelation of transportation and urbanization can be clearly seen through the process of industrialization, change in nature of occupation, generation of employment other than traditional businesses, all of which will be studied in this research work. This study will also help to understand the demographic changes in Poona, and the impact,

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[1] *India Today, issue date 15/02/1997, updated on 17/04/2013 https://www.indiatoday.in/magazine/editor-s-note/story/19970215-it-is-not-wealth-that-built-our-roads-but-roads-that-built-our-wealth-832832-1997-02-15*

directly or indirectly upon the society due to the introduction in transportation.

The research subject intends to explore the relation between growth and development of transportation and the urbanization of Poona.

Geographical Scope – Poona and Its Environs, **Time Period** - 1804 to 1950 is a time frame selected for intended research topic as first road fit for artillery constructed by British East India Company in 1804 to 1950 till the formation of Poona Municipal Corporation.

Hypothesis

1. Means and modes of transportation and urbanization have a direct link with each other as both are complementary in the growth and progress of urbanization.
2. Since modes of transportation decide the scope and outreach of civilization and means of transport determines the pace of progress in area such as economic development and consequential development in socio-cultural, political, and military aspects.
3. Understanding the role of transportation in urbanization of Poona becomes significant in order to understand the direction and nature of changes that took place in Poona.

Objectives

1. To examine in detail the changes introduced by the colonial government in the transport systems of Poona.
2. To understand the role of transportation in the development and growth of the city and its impact on various aspects of life in Poona such as economy, society, and culture.
3. To find out the administration's point of view regarding transportation policy in Poona during 1804-1947. Also, consonantly if there was a change in focus regarding this policy in the transition from the rule of the Company to the Crown.

4. To examine the transitions that took place in Poona during the colonial period and their relation to the changes in the means of Transportation.

Chapter Scheme

1. Transportation and Urbanization

Transportation and Urbanization of a particular region have inevitable interdependence on each other, as means and modes of transport system plays pivotal role in developing and nurturing urban characteristic of a specific region. Nature and function of Transport system has always influenced the nature of Urbanization.

A brief survey is intended on Nature of Transportation system on Indian Sub-Continent in pre-modern period, characteristics of a transport in western India during 18th century i.e., nature and course of transportation and its urbanizing implications on Pune.

2. Evolution and Revolution in Transportation

With the arrival of European powers on Indian sub-continent, technologies of western European countries also travelled to India. The pace, nature, and direction for the development of transport system, economic, and political institutions of the land played crucial role.

The word evolution has been used for transportation in context of nature of road transportation during British rule over Poona and its gradual development till the second quarter of 20th century. The word revolution is used for modern road building methods implemented in India and railways introduced by British in India in 1853 connecting Bombay with Thane, and then line was extended towards Poona within next five years i.e., 1858.

3. Trade and Industrial aspects of Urbanization

Change in economic profile of a Poona and the changing nature of Poona's economic activities and its direct relation with transport system can be clearly observed. The requirements of economic and military

establishments facilitate the development of transport network around Poona.

Nature and direction of trade and industrial development in Poona during concern time period was directly linked to the transport system in Poona, the expansion of Poona in its urban limits and change in nature and scope of economic activities took place due to the transportation.

4. Socio-cultural aspects of Urbanization

The extension of Poona's urban areas and newly emerging economic establishments and improved transport facilities influenced population composition in Poona as the military establishment and altogether new occupations created favourable grounds for making Poona a multi-cultural Urban area.

Conclusion followed by list of references.

1. Transportation and Urbanization

"Human Life swings between two poles: movement and settlement."[2]

- Lewis Mumford

Transportation plays pivotal role in emergence of human settlements across the world and time, as it dictates the movement of goods & people and along with these two mobilizations of ideas from one place to multiple corners of the region and world or vice-versa. Means and modes of transportation indicates nature of socio-economic structure of a particular area as it is directly related to their trade, industries, education, culture.

Urbanization as a process, get influenced by variety of factors like economy, polity, socio-culture, military and many more factors at play in a particular urban area leads to more vivid urbanity of that city. Variety of occupation and diverse composition of population plays significant role in making cities more vibrant and sustainable in terms of socio-economic aspect.

Interplay between political and economic factors gives direction and shape to the urban settlements and in case of Poona between 1804 to 1950, Poona experienced dynamic economic, political, administrative, and social changes. This research attempts to study the role of Transportation in urbanization of Poona as it changes economic and social and administrative identities of Poona.

1.1 Transportation

Transport means to carry or convey goods/people, etc., means anything and everything to do with operation of goods vehicles and movements of goods.[3]

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[2] *Mumford Lewis, The city in History, A Harvest Book Harcourt, New York, 1961, p. 5.*

Transportation is the carriage, conveyance or transfer of persons or property from one place to another.[4] In simple language transportation means movement of goods and people from one place to another so very first means of transportation was human himself then as civilization progress we discover wheel and that helped a lot and transform life of early humans.

Man can create thought: but he can only move matter, readjust it and bring it into position for being affected by Nature's chemical and vitalizing influences: there is indeed a large element of simple transport in mining, forestry and even some manufacturing industries. But the "transport" industries, which undertake nothing more than the mere movement of persons and things from one place to another, have constituted one of the most important activities of man in every stage of advanced civilization.[5]

They may be thought of as revolutions when the relations of transportation and social and economic development are considered. It was pointed out that improved access to resources and markets increased choices available to producers and consumers. Beyond that there was improved access to the worlds of ideas and knowledge, a point that many writers remark on in discussions of the Crusades. Ideas are light baggage and they move wherever there is travel and trade.[6] Revolutionary change has always taken place when socio-economic development has been hand in hand with development of modes of transportation.

Transport is a common need of nearly all persons and nearly all goods. Speaking generally, each transport agency can carry almost anything in its special area;[7] every stage of productive activity is generally linked with transportation. It is fair to say that transportation

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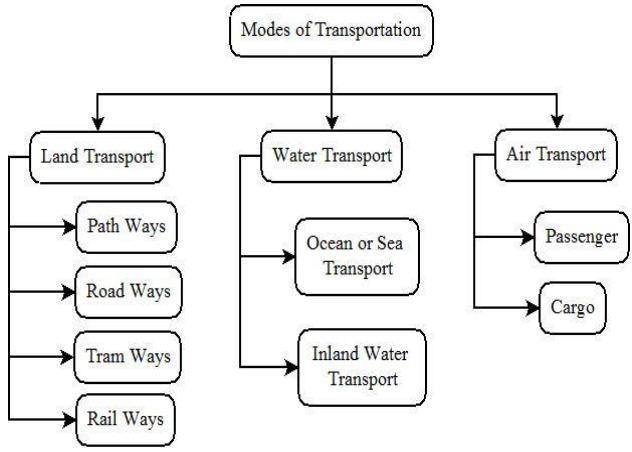
[3] *Lowe David, The Dictionary of Transport and Logistics, Kogan Page, London, 2002, p. 255.*
[4] *Johnson Emory R., Transportation Economic Principles and Practices, D. Appleton Century Company Publisher, New York, 1940, p. 3.*
[5] *Marshall Alfred, Industry and Trade, Macmillan Publisher, London, 1932, p. 274.*
[6] *William L. Garrison, Historical Transportation Development, Institute of Transportation Studies University of California at Berkeley, Research Report UCB-ITS-RR-2003-6, p. 4.*
[7] *Marshall Alfred, Industry and Trade, Macmillan Publisher, p. 274.*

advances working with other advances, such as the printing press, enabled thoroughgoing changes, revolutions. It is just as important to say that transportation's advances were conditioned by social environments and markets, as is always the case for technologies.[8]

Chart No. 1.1 Modes of Transportation



The modes of transportation are important to understand because this reveals the nature of activity, it may be economic, social, and political. The reach of people, commodities or ideas can be easily inferred from the modes of transportation. Roads proved beneficial to Roman Empire as sea ways to British people to establish their supremacy over major part of the world.

Modes of transportation, each of them has separate course of development like in case of land transport, from pathways to modern long and wide highways. Same with the water transport from small wooden platform or boat, which was accessible in lake or Small River to big ships of modern days with the ability of carrying huge cargo and few hundreds of people at a time that to across the world. Apart from this development totally new mode of transportation was invented in modern days i.e., Air Transportation.

[8] *William L. Garrison, Historical Transportation Development, p. 5.*

1.2 Interpreting Urbanization

Means and modes of transportation and urbanization has direct link with each other as both are complementary to each other. Since modes of transportation decides the reach of that civilization and means of transport determine the efficiency of the society, hence understanding role of transportation in urbanization become significant.

The ten pre-conditions for the urbanization given by Gordon Childe:

1. 'In point of size the first cities must have been more extensive and more densely populated than any previous settlements.'
2. 'In composition and function the urban population already differed from that of any village … full-time specialist craftsmen, transport workers, merchants, officials and priests.'
3. 'Each primary producer paid over the tiny surplus he could wring from the soil with his still very limited technical equipment as tithe or tax to an imaginary deity or a divine king who thus concentrated the surplus.'
4. 'Truly monumental public buildings not only distinguish each known city from any village but also symbolize the concentration of the social surplus.'
5. 'But naturally priests, civil and military leaders and officials absorbed a major share of the concentrated surplus and thus formed a "ruling class".'
6. 'Writing.'
7. 'The elaboration of exact and predictive sciences – arithmetic, geometry and astronomy.'
8. 'Conceptualized and sophisticated styles (of art).'
9. 'Regular "foreign" trade over quite long distances.'

10. 'A State organization based now on residence rather than kinship.'[9]

Urbanization as major outcome of transportation system plays a crucial role in the progress of human civilization. Non-agricultural settlement, this is the point of difference between rural socio-economic structure and urban centers. Cities are more tend to focus on activities like producing non-agricultural items, luxurious commodities, producing and manufacturing for market, densely populated. These can be broadly considered as symbols of urban settlement. Role of cities differs according to their nature, for example, some cities are political centers like capital cities, some served as major economic center because of their geographical importance like coastal cities for overseas trade, some cities rose to prominence from military point of view because of their strategic location, some cities develop as pilgrimage city due to religious activities performed in that area.

Functional scope of urbanization is significant while demarking area as urban. Urban forms across the world and throughout the history have one constant feature i.e., occupational variation. Though emphasis has been given to the size of settlement and density of population. I think, variety of professions, occupations, services, and scope of employment should be parameter for describing settlement as urban or non-urban. In quest of theorization and generalizing certain principles of human establishments, we sometimes, intentionally ignore uniqueness of the very same establishments.

1.3 Description of Poona

The following description of Poona city is available in Imperial Gazetteer provincial series Bombay Presidency and Poona District Gazetteer, Poona City: Head quarter of Poona District, situated in 180 31'N. and 730 51'E., on the Great Indian Peninsula Railway, 119 miles south-east of Bombay, and a terminus of the Southern Mahratta Railway; 1,850 feet above the level of the sea, and, in a straight line, about 63

[9] *Smith, Michael E., V. Gordon Childe and the Urban Revolution: A Historical Perspective on A Revolution In Urban Studies, Town Planning Review, 80 (1) 2009, pp. 10-11.*

miles from the coast. The name seems to be derived from the Sanskrit Punyapur, or cleanser, probably referring to the holy meeting of the Mutha and Mula rivers. It is the military capital of the Deccan, and June to October the seat of the Government of Bombay.[10] Along with being military headquarter of Southern Command Poona was also seat of Bombay government from June to October, this marks its significance from the political point of view. This also played important role in developing transportation facility connecting Poona, since for the military mobility of their resources was crucial factor as well as for the political structures connectivity of the place has remained prominent factor.

Poona was somewhat unusual as an urban center in the history of eighteenth-century India. It did not have the commercial importance of Surat, Ahmedabad or Burhanpur; nor did it have the imperial heritage of Agra and Delhi. It was more or less, the creation of a single family, the Peshwa, who painstakingly transformed it from an obscure Kasba i.e., market town and a seat of a Jagir i.e., feudal assignment into thriving city.[11]

Old Poona city has been divided in different peths it has developed without any town planning as such, hence the roads are narrow, and its growth was not a directed one. Peths in Poona City, this has unique position in the development of Poona because this part of the city experience progress from small Kasba to a city with its cultural, educational, and strategic importance. Here we need to take look in peths of Poona because this area is considered as old Poona and played major role in the history of the Marathas from the time period of Chhatrapati Shivaji onward and consequently its gradual development in the reign of Peshwa. List of Peths in Poona with its establishment year is as follows:

1637-62 1. Kasba

2. Murtazabad-Shanivar

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[10] Imperial Gazetteer of India, Provincial Series Bombay Presidency, Vol. 1, pp.521-522.
[11] Gokhale Balkrishna Govind, Poona in The Eighteenth Century an Urban History, Oxford University Press Publisher, New Delhi, 1988, p. 2.

3. Malkapur-Ravivar (redeveloped in 1740-41)

4. Shahpura-Somvar

1663 5. Astapura-Magalvar

1703 6. Mohiyabad-Budhvar

1734 7. Visapur-Shukravar (redeveloped in 1748-49)

1750 8. Vetal-Guruvar

1755 9. Nagesh-Nihal

10. Ganesh (redeveloped in 1789)

1761 11. Narayan

1767 12. Bhavani

1768 13. Muzaffarjang-Ghorpade

1769 14. Sadashiv

1781 15. Ghorpade

1783 16. Rasta

1789 17. Nana

18. Ganj (it is difficult to assign a date to this peth)

This are the 18 peths of Poona in 18th century.[12]

Poona city can be divided in five main parts viz. old city i.e., peths, Shivajinagar, Cantonment, Khadki Cantonment and Suburb.[13]

Apart from the old city consist of peths there were later development in the growth of city mainly because of expansion of city limits to cater the growing industries and consequently demand for residences to accommodate increasing population, Shivajinagar and

[12] *Ibid, p. 16.*
[13] *Mangudkar M P (Dr), Pune Nagar Sanstha Shatabdi Grantha, Pune Municipal Corporation, Pune, 1960, p. 35.*

suburb falls in this category and another reason was city's military significance as it has two cantonments i.e., Poona and Khadki.

Old City mainly consist of different peths, got settled by the time of British conquest, their boundaries were remained same.

Second part is Shivajinagar area, it start developing mainly in the last quarter of 19th century, several factors were responsible for the development of this area, first among them was to accommodate increasing population of city, in 1885 Fergusson college was constructed in this area and later on in 1896 Maharshi Karve Stree Shikshan Sanstha, in 1905 Servents of India Society was also started by G. K. Gokhale, in 1916, S.P. College started in next year i.e. 1917, Bhandarkar Oriental Research Institute was founded, this are some important land mark in Shivajinagar area which helped in development of this area in the early decades of 20th century. In 1924 after the construction of Lloyd Bridge now known as Shivaji Pul (bridge), expansion of this area took momentum.

Third part is Cantonment area also called as Pune Cantonment, this area was military base for the British army in Poona city Since the treaty of 1802 but this part of Poona city grew in importance mainly after the fall of the Peshwa in 1818 as British decided to have their permanent military base in Poona and this Cantonment earlier of temporary kind of settlement turned into permanent station of British Forces and this was the main reason for the development of this area. One can see clear British influence on the Cantonment through its architecture, roads, gardens, and the community settled in this part of Poona.[14]

Fourth part is Khadki Cantonment; this place is significant for the Marathas as well as for British because Khadki was battleground for the Third Anglo Maratha war in 1818.[15] This was selected as second British Army Cantonment in Poona. Development of cantonment and Khadki cantonment were on parallel line during British period and

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[14] Ibid, p. 36.
[15] Grover B. L. Mehta Alka, A New Look At Modern Indian History, Thirtieth Edition, S. Chand Publisher, New Delhi, 2014, p. 121.

military dominated the life style of this part of Poona till 1947. Major turning point came in the expansion of the Khadki cantonment area was the establishment of Ammunition Factory in 1869 and hence onward the population composition of this part of Poona took a new turn as the people related to ammunition factory start settling in this area and it experiences major extension in its boundaries from first world war onward and the military activities were on its peak during the second world war[16] but as the strategic importance of Khadki Cantonment rose and the inflow of people increase, related commercial activity found scope as to cater the need of the increasing population.

Fifth part is Poona's Suburb, till now we have seen the old city part, Shivajinagar area with its educational importance, Poona cantonment and Khadki Cantonment with its military importance. This fifth part of Poona city play supplementary role in the progress of the Poona. It caters the needs of Poona city with its ability like in form of supply of grocery items like vegetables, milk products, and certain food grains.[17]

1.3.1 Poona City

For Municipal and other purposes, the city is divided into 18 wards or peths, which could conveniently be grouped into three divisions – the eastern, the central and the western. The eastern division, most of which dates from the beginning of the British rule, lies between the left bank of the small winding stream 'Manik' and the right bank of the larger and less irregular 'Nagjheri', which after the westerly course joins the Manik stream as it falls into the Mutha river. West of Nagjheri, the city proper, the Poona of Mahomedan (1290-1636) and early Maratha (1636-1686) days, with its centre and original starting point at the younger Shaikh Sallas Mosque, once the temple of 'Puneshwar' about 1,000 yards above the meeting of the Mutha and Mula rivers stretches about a mile along the river bank and runs inland about 1.5 miles. West of the city proper, the third division, stretching along the river bank about 800 yards and

[16] *Mangudkar M P (Dr), Pune Nagar Sanstha Shatabdi Grantha, p. 37.*
[17] *Ibid, p. 38.*

gradually narrowing to a point near the Lakdi Bridge, consists of suburbs founded in the later days of the Peshwa rule (1760-1818).[18]

The earliest record of Poona's population is for the year 1780 when it was estimated at 1,50,000. During the years from 1796 to 1803 the population of the city decreased considerably, due to political instability. In 1851, the population was estimated at 73,209. With the opening of the Railway in 1856(1858), the population rose to 80,000 in 1864, to 90,436 in 1872 and to 99,622 in 1881.[19] Thereafter, it rose steadily each decade as follows: -

Table No. 1.2 Population of Poona

Year	Population
1891	1,18,790
1901	1,11,381
1911	1,17,256
1921	1,33,227
1931	1,62,901
1941	2,37,560

1.3.2 Poona Suburbs

Suburban area began to grow during the reign of the Peshwas. It was constituted into a separate municipal area by Government Notification No. 501, dated the 12th February 1884. The boundaries then prescribed were, on the north the river Mula-Mutha, on the south the G.I.P. Railway line between gates Nos. 66 and 67 and the boundaries of the city Municipality as far as Sachapir, on the east, Koregaon Road, leading from Fitzgerald Bridge towards the south as far as Railway gate No. 66

[18] *Report of the Greater Poona Municipal Constitution Committee, 1947, p. 4.*
[19] Ibid, pp. 4-5.

touching the cantonment limits, and on the west the limits of the Poona City Municipality as far as Sachapir.

In 1888, the village of Yeravda, New Kirkee and Sangamwadi, including a strip of land between Wellesley Road, and the G.I.P. Railway were included within the limits of the municipality and again in 1889 a portion of land admeasuring 4,900' in length and 1,350' in breadth, skirting Koregaon Road, on the east and extending up to the river Mula-Mutha near Yeravda, was added to its area. No further change in the boundaries of the municipality took place till 1911, when by government resolution, General Department, No. 6509, dated the 1st November 1912, Survey Nos. 163 to 173, 183 to 185 and 264, along with survey Nos. 268 and 149 of Bhamburda, Taluka Haveli, situated between the portion of the G.I.P. Railway line from Ganeshkhind road crossing to Wakade's Gate, forming a portion of the existing boundary of the municipality from the Railway crossing up to Sinhgar Road, the eastern boundary of the Agriculture College, together with survey No. 148 of Bhamburda, Taluka Haveli were included within the limits. The area, after this inclusion, measured 4 square miles. In 1920, a portion of the land north of Yeravda, from the junction of Ahmednagar Road and Jail Road, was further added under Government Resolution, General Department, No. 6041, dated the 1st June 1920. The Koregaon Park Estate was added to the municipal area in 1922, and thereafter there was no change till 1944, when the Sangamwadi village was handed over to the Cantonment Board Kirkee. The population of this area increase considerably every year during the monsoon, when Government moves to Poona. In 1881, the population was 2,370; in 1891, it rose to 6,700; in 1901, it further rose to 8,100; in 1911, it stood at 9,963; in 1921, it was 14,630; in 1931 it rose to 16,673 and in 1941 to 19,994.[20]

1.3.3 Poona Cantonment

Poona Cantonment came into existence after the battle of Khadki and the capture of Poona city in November 1817. After the fall of the city the troops were encamped in tents on the spot now called the Ordinance

[20] *Ibid, p. 5.*

lines. They were attended by vani grain dealers and other traders whose two lines of thatched huts now in Main and Tabut streets formed the beginning of the Sadar Bazar. Next came Parsi traders from Sirur and Bohra traders from Poona and Memon traders from Cutch in about 1835. The Sholapur Bazar was established in 1818 by the Madras Pioneers whose camp was on the site of the present Transport lines. The break-up of Queens Bazar on the site of Vanavdi Ball Alley, further strengthen the Sholapur Bazar. The Vanavdi Bazar was founded in 1825. The Ghorpadi Bazar was started in 1844 on the spot where the Ghorpade hospital now stands. It was afterwards moved eastward to its present site. Barracks were built at Ghorpadi in 1842, 1849 and 1880, and large double storied barracks at Vanavdi between 1861 and 1872. As Poona grew in importance owning to its position as the Headquarters of Government during the Monsoon, the demand of Civil and Military officers for houses and offices steadily increased and led to the building of staff lines to the north of the cantonment in the direction of the railway and river.

The Poona Cantonment had originally an area of about 4.25 square miles. It was a rectangular plot of land about 2.72 miles from north to south and varying from 1.36 to 1.62 miles from east to west and was bounded on the north by the G.I.P. Railway, on the east by Bahiroba's stream, on the south by a line drawn from the Vanavdi hay stacks past the back of the military prison to the cemetery on the Satara Road, on the south-west and west by the Bhavani and Nana Wards of the city, and on the north-west by the line of the Council Hall which separate it from the Suburban Municipality. The present area of the Cantonment is about 5.3 square miles. The population of the cantonment in 1881 was 30,225. According to the 1941 census, it was 40,447, out of which 31,862 was civil population and 8,585 was military personnel.[21]

1.3.4 Kirkee Cantonment

The Kirkee Cantonment was established in 1817. It is the principal artillery station in the province and is the Headquarters of the Bombay Sappers and Miners. The Kirkee Cantonment has special importance

[21] *Ibid, p. 6.*

from the military point of view as the ammunition factory is situated within its limits. The Kirkee Bazar was started in 1822. The new Jhansi lines where the Sappers and Miners are quartered were subsequently built to the south-east of Kirkee. For cantonment purpose the New Jhansi lines are included in the Kirkee Station. It originally covered an area about 2,700 acres and was bounded on the north and east by the Mula river, on the south by a line drawn from the old Government gardens at the top of the ridge on the parade ground and on the west by a line drawn from the parade ground ridge to the mula river. subsequently, the area of this cantonment increased to 3275.49 acres and with the transfer of the Sangamwadi village from the Suburban Municipality to this Cantonment on 14th October 1944, the area increased to 3283.31 acres. Its population according to the census of 1941 was 24,065 out of which 16,290 was civil population and 7,725 was military personnel.[22]

Table No. 1.3 Area, Population and Boundary of Poona City[23]

Year	Total area (acres)	Population	Boundary
1872	1,912	90,436	Shankarshet Road to Ambil Odha to the South bound on the western and northern sides by Mutha on its right bank; on east from Wellesley Road to New Modikhana on Nagzari side.
1881	2,437	99,622	Area bound by Shankarshet Road, Satara Road and Gul Takdi, Golibar Maidan included
1890	4,058	1,02,683	Erandawana across Mutha,

[22] *Ibid, p. 6.*
[23] *Kulkarni Shriniwas Shankar, A study of the impact of the cycle industry on mobility of population with reference to Pune city 1969 to 1980, Savitribai Phule Pune University, 1983, p. 33, Shodhganga, web, https://shodhganga.inflibnet.ac.in/handle/10603/148628*

			Bhamburda, Shivaji Nagar
1931	4,644	1,63,267	Parwati Gaothan to Mouje Hingane boundary
1935	4,708	1,63,346	Area near the foot of the Chaturshringi Hills
1941	4,708	2,37,560	No Change
1950	10,240 (6,400 City + 3,840 Suburban)	4,00,000 (approx.)	Poona City plus Suburban area

1.4 Settings of Poona's Urban and Transport System in pre-19th Century

In prehistoric times, like the rest of the Deccan, Poona is said to have formed part of the Dandakaranya or Dandaka Forest.[24] From very early times trade routes must have crossed the Poona district down the Sahyadri passes to the Konkan seaports of Sopara, Kalyan and Cheul.[25]

The earliest mention of its name occurs in a cooper plate inscription of the Rashtrakuta King Krishna I dated A.D. 758, where there is reference to the Poona Region i.e., Punya Vishaya. In another inscription of the same, dated A.D. 768, the region is called Punaka.[26] As inscribed stones and copper plates have been found in the neighboring district of Ahmednagar, Sholapur and Satara, it is probable that the Early and Western Chalukyas held the Poona district from about 550 to 760 A.D.; the Rashtrakutas to 973 A.D.; the Western Chalukyas to 1184 A.D.; and the Devgiri Yadavas till the Musalman conquest of the Deccan

[24] *Gazetteer of the Bombay Presidency, Vol. XVIII. Part II., Poona, 1885, p. 211.*
[25] *Ibid, p. 211.*
[26] *Gokhale Balkrishna Govind, Poona In The Eighteenth Century An Urban History, Oxford University Press Publisher, New Delhi, 1988, p. 2.*

about 1300A.D.[27] Aluddin Khalji (1296-1316), the Turkish-Afghan Sultan of Delhi, overthrew the Yadavas and Poona area came under Muslim control. The Khaljis were supplanted by the Tughlaq and during the time of Muhammad Bin Tughlaq (1325-1351) rose the rebel Deccan State of the Bahamanis. Poona then came to be included into the Nizamshahi Kingdom of Ahmednagar, one of the five states into which the Bahamani Kingdom broke up towards the end of the fifteenth century.[28]

The Sultan of Ahmednagar in 1604 granted Poona to Maloji, the grandfather of Chhatrapati Shivaji. In 1637 the grant was confirmed in favour of Shahji, father of Chhatrapati Shivaji. In 1663 (Shahista Khan controlled Poona since 1659 CE), during the operations conducted against Chhatrapati Shivaji by order of Aurangzeb, the imperial viceroy Shaista Khan took possession of the open town which, when surprised a few days afterwards by Shivaji, he had great difficulty in making his escape. A powerful force however immediately reinstated the discomfited commander. In 1667 Aurangzeb restored Poona to Chhatrapati Shivaji.[29] The period from the passing away of Chhatrapati[30] Shivaji in 1680 to the restoration of his grandson, Shahu, in 1708, saw the young Maratha state engulfed in one crisis after another. Through the reigns of Chhatrapati Sambhaji during 1680-1689, Chhatrapati Shivaji's son and successor, Chhatrapati Sambhaji's brother Chhatrapati Rajaram during 1689-1700 and Chhatrapati Rajaram's widow, Tarabai during 1700-1707, the Marathas struggled for their very survival against the onslaughts by the Mughal emperor Aurangzeb.[31]

One outstanding figure hitherto entirely unknown to the world outside now appears on the stage of Maratha politics and works in favor of Shahu, viz., Balaji Vishwanath Bhat, whom later Shahu appointed his

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[27] Gazetteer of the Bombay Presidency, Vol. XVIII. Part II., Poona, 1885, p. 214.
[28] Gokhale Balkrishna Govind, Poona In The Eighteenth Century An Urban History, pp. 2-3.
[29] Imperial Gazetteer of India, Provincial Series Bombay Presidency, Vol. 1, p. 522.
[30] Sardesai Govind Sakharam, New History of the Marathas, Vol. 1, 2nd edition, Munshiram Manoharlal Publishers, New Delhi, 1986, p. 222.
[31] Gokhale Balkrishna Govind, Poona In The Eighteenth Century An Urban History, p. 3.

Peshwa and who was instrumental in changing the entire character of the Maratha Government.[32]

The history of Cheul, Kalyan, Supara and Thana in the Konkan, and of Junnar, Nasik and Paithan in the Deccan shows that from early times several important trade routes passed through the Poona District.[33] This indicate that Poona and surrounding region served as halting point for the goods and people, which were transported from inter land to western coastal ports and in reverse manner.

The history of Poona goes back in time as far as AD 8th century, from this period onward it grew as small kasba but the importance of Poona begins from the time of Chhatrapati Shivaji, in October 1636 Jija Bai restored to settled peaceful life at Poona built a palace at Kasba, which was known as the Lal Mahal. Here Chh. Shivaji lived with his mother from 1636 onward until they moved to Rajgad.[34] In this period of Chh. Shivaji's stay in Poona region was time of peace in the history of Poona as security of the territory was ensured and impetus was given to the agriculture.

In the 18th century, with the rise of Peshwa in the Maratha polity and Bajirao I selected Poona as his residence eventually transferred the administration of Maratha state to Poona region. Since onward Poona's development as the epicenter of Maratha administration, paved the way for the building and construction activity in and around Poona. This followed by the Poona connecting to the major administrative, economic and military centers of western India.

From the 18th century onward because of Poona's political significance one can observe the states' special attention to the city's internal roads from the point of view of connectivity as well as of security. There were instances when efforts were made to widen streets and in the process those whose properties suffered under right of way were given compensation either in monetary terms or alternate

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[32] Sardesai Govind Sakharam, New History of the Marathas, p. 364.
[33] Gazetteer of the Bombay Presidency, Vol. XVIII. Part II., Poona, 1885, p. 141.
[34] Sardesai G. S., New History of the Marathas,2nd edition, vol. 1, Munshiram Manoharlal Publishers, New Delhi, 1986, p. 94.

accommodation. In matters of defense need of the city the government did intervene and built new walls, or strengthened the existing fortifications and laid out narrow streets to impede movement of large forces at a time.[35]

During the period of Peshwas, Poona city experiences increase in its geographical boundaries and city was divided into different peths, this had its internal road network which affected the socio-economic composition of that part of the Poona city. List of main roads in the peths of Poona as follows:

Sadashiv peth – this had narrow but good road, called as Haud road till Lakdi Bridge. And there are several alis i.e., narrow streets like, Dolkarali, Sotya mhasoba road, Gaiali, Joharya Mahadevacha road, Navya Peth Road.

Shanivar peth - this had two main roads, one called as Shanivarche Maruti road, and another is Narayan Peth Road.

Mangalvar peth - this had one main road and other are Bol i.e., narrow roads. Main road goes till Sangam and one branch of it go to Garpir.

Ravivar peth – this had 2-3 wide roads. The width of main road was 20 feet and both side sewage lines covered with stone slabs, width of this was 6 feet. This road was considered as widest road in Poona.

Ganesh peth – this had two roads. The main road goes to Lashkar. Roads in this peth are not so wide and there are a greater number of narrow roads and alis i.e., narrow streets like Lonar ali, Pangul ali, etc.

Shukravar peth – this had two roads and one of it goes to Bavannakhani.

Gurvar peth – this had four roads, two out of them were main roads, rest were alis i.e., narrow streets.

Budhvar peth – this had narrow roads and main junction in this peth called as Balechawk.

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[35] *Gokhale Balkrishna Govind, Poona in The Eighteenth Century an Urban History, p. 42.*

Ghorpade peth – this had wide roads.

Rasta peth – in this peth Gosavi pura was good area and this gosavis were Traders hence their houses were lavish and well equipped, hence we can understand that conditions of roads were good.

Bhavani peth – this had two roads.

Navi peth – this had cart making Karkanas i.e., factories and various types of trading activity practiced in this peth.[36]

The above brief sketch regarding the historical background of the Poona city presents a picture that city has remained important economic and political center in different time period, the prominence may have risen and fall over the period of time but its presence in history is traceable, though role of Peshwa was important in rising importance of Poona but city continued to be a one of the significant center for learning as well as pivotal point in the trade of district and its connectivity with Bombay during the colonial period enhanced the scope of Poona city to flourish as a major urban center.

The focus of this study is to understand the changes in urbanization of Poona, and its impacts, directly or indirectly upon the society due to the introduction of modern transportation. The research subject signifies the role of transportation in the development of Poona. The interrelation of transportation and economic development like industrialization, change in nature of occupation, generating employment other than traditional businesses will also be studied.

The study will help to know the demographic changes in Poona, and its impacts, directly or indirectly upon the society due to the changes in transportation. The research subject signifies the role of transportation in the development of Poona.

Transport, means to carry from one place to another which can be human, animal or goods so it holds a central status of all subject i.e., Humans come under the scope of our research subject. This research

[36] *Mahajan Shantaram Gajanan, Pune Shahrache Varnan, Mansanman Publisher, Pune, 2002, pp. 59-67.*

includes various modes and means of transportation in Poona. Administrator's policies and its outcome in the shape of gradual change in pattern of economic activity, like industrialization, employment, labor mobility.

The role of transportation could not be studied in isolation or restricted to a one city, it must consider in to the relation of that city's connectivity with other economic and political centers present in region or across the region. Hence the territorial scope has been selected for the research as follows: Geographical scope of Poona city which includes Old city, Shivaji Nagar, Cantonment, Khadki Cantonment, Suburb. However, several changes appeared after the 'Queen's Proclamation,' as the power shifted from the East India Company to the British Crown and stayed with them till 1947.

This chapter covers brief sketch of Poona's history keeping transportation and Urbanization as a focal point and gives scope of research work in context of keywords mentioned in title. The second chapter give emphasis on the nature of changes introduced in terms of transport system and its varied consequences.

2. Evolution and Revolution in Transportation

"The Good roads, the numerous enclosures, the comfortably tiled houses, the water courses faced with stone and crossed by bridges – all spoke a European colony, as much as the churches and crosses."[37]

- *Mountstuart Elphinstone*

Transportation has influenced human society since the time immemorial, because movement is the basic instinct of humans and progress cannot take place without the mobilization of people, goods, and ideas, hence means and modes of transportation has influenced economic, social, and political structures of Poona. Transportation from the early time has playing key role not only in the movements of goods and people, but the ideas and knowledge from one place to another.

With the entry of British colonial authority on Indian subcontinent as economic & political power and consequently by middle of 19th century acquired the supreme status on subcontinent as the major military, economic and political authority, as in the first quarter of 19th century itself the majority of the Indian territory were under the British and it created necessity for them to have their military centers well connected to each other as the survival of the colonial authority primarily depends upon their militaristic supremacy. Hence the attention was given to the reparation of old highway and construction of new ones.

2.1 Routes Connecting Poona during Peshwa period

From Peshwa period onward Poona's connectivity was ensured as it was considered as de facto capital of the Marathas, hence roads connecting to major administrative and economic center were given attention during

[37] *Cotton J. S., Rulers of India Mountstuart Elphinstone, Oxford, 1892, pp. 157-58.*

18th century. Apart from this it was the residence of Peshwa, Poona's military importance also gone up and provisions were made to provide mobility to the troops to major strategic post in territory which was directly or indirectly administered by Marathas.

Transportation was carried out by several routes and means under the Marathas. There was major two routes as Land route and Water route. The Marathas connected Poona through several land routes for transport and communication. Among them some of the important land routes known as highways were used for long transport and communication. They were as under: -

The first highway was from Poona to Agra on which there were several important centers as Aurangabad, Ajanta, Burhanpur Sironj, Narvar, Gwalior and Dabalpur. This route proved profitable in trade and commerce and prospered the Marathas kingdom.

The second highway between Poona and Shrirangapattam was the longest route under the Marathas. The important places for trade and commerce on this highway were Pandharpur, VijapurJat, Galgale, Bagalkot, Anaji, Harihar, Chitradurgashire and Nammangal.

Poona to Bhaganagar (Hyderabad) was the fourth highway, had other places of importance between Poona and Bhaganagar were Supe, Baramati, Tuljapur, Udgir, Bhalki, Bidar and Golconda. The fifth highway from Poona to Konkan was through several passes, because, Konkan area had many uphills and mountains, one of the important and difficult passes was the Borghat pass.[38]

Despite, these highways, there were some short routes used for internal transport and communication, they were as: -

Poona to Nasik, this road connected to the important and popular places like Bhogpur Peth, Khed, Chakan, Bosari, and Bramapuri, between Poona and Nasik.

[38] *https://archive.mu.ac.in/myweb_test/M.A.%20-%20II%20-%20History%20-%20VIII.pdf , pp. 260-62.*

Poona to Kolhapur, Kolhapur had been a popular place for its market as well as a religious center.

Poona to Pandharpur The important route brought in contact the trading centres like Mandve, Theur, Patas, Sangwi and Akluj.

Poona to Satara, this was the road brought in touch with the places like Jejuri, Dahigao and Mahuti.

Poona to Aurangabad, the places brought in net on this route were Koregaon, Ranjangaon, Ghodnadi, Jatagaon, Ahmednagar, and Kayegaontake. This route proved very useful for transporting food grains and other commodities of cash and commerce.

Poona to Nagpur, route covered Aurangabad, Dahadi, Jafrabad, Balapur, and Alajpur.

Poona to Dharur, This route lays through the centres like Theur, Walvi, Adalgaon, Bhosegaon, Singavi, Dhanora, Barsi, Pangaon, Pedgaon, Beed and Kage. This road connected major parts of today's Marathwada with the de facto capital city of the Marathas.

Poona was connected to Solapur also, where cotton weaving and spinning industry had flourished. Uralikanchan, Belsar, Jejuri, Pandharpur, Banhoolgaon and Singoli were other important places on this route. Poona was connected to Surat and Gujrat also.

Despite these highways and routes connecting Poona, Satara and Kolhapur, there were some other passes which were used as roads for transport and communication. These passes were mostly in Konkan area of the kingdom; these passes were like Borghat pass, Kesari pass, Diva pass and Karjat pass. Moreover, the various campaigns of Peshwas formed new routes through different territories as Peshwas campaign to Mysore created a totally different route through Gadag, nagmangal and Krishna River.[39]

Emergence of Poona as political center in early decades of 18th century attracted traders to Poona and consequently with the rise of

[39] *Ibid, pp. 261-62.*

population, area under human settlement increase in and around Poona city. One of the major governmental concerns was the building and maintenance of public works in the city. The wooden bridge on the Mutha River was damaged by flood in 1810 and was repaired at a cost of Rs. 158 which was recovered from taxes. The government also took special interest in laying out avenues of shade giving trees on highways frequented by traders and pilgrims coming into Poona or journeying from Poona to market towns and places of pilgrimage.[40]

Means of transportation depicted the status of the person in the society for example if a person from royal house will ensure their dignity while travelling on the other hand trader will look for economical means and modes of transportation. Members of the ruling family were provided means of transportation appropriate to their status. For occasion of state, they rode elephants or chariots drawn by bullocks or elephants. Ladies of palace rode in palankins decked with tassels of embroidered velvet and carried by four persons.[41]

In the nineteenth century wholesale traders in foodstuffs were concentrated in the Mangalwar, Nana and Bhawani peths. These received their supplies from travelling Bania. The wholesalers in their turn sold their goods to the retailers scattered through all the peths. Large scale supplies of rice came from the Konkan area, while the Desh was source for wheat, ghee, oil, sugar, and various spices. Our documents from the 1720's onward steadily reflect these imports. This is another example of changing nature of Poona city in 18th century.

The Ganj, Rasta, Mangalwar and Budhwar peths seem to have had the major part of commercial activities in Poona. Bullocks, ponies and camels were used for transporting goods from the north, the Konkan and Desh. The principal carries were the Lamans and Wanjaras who, at one time, used between 1000 and 2000 bullocks for carrying goods. Horse carriages were sometimes used for personal transportation.

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[40] Gokhale Balkrishna Govind, Poona In The Eighteenth Century An Urban History, pp. 85-86.
[41] Ibid, p. 68.

As the volume of trade increase need was felt for the security of goods in transit, for this purpose a system of insurance for goods in transit had come into vogue in the second half of the eighteenth century. Known as Wima, the term was applied to a percentage on the value of articles conveyed from place to place, and insured against their loss or damage. Insurance was also paid at Poona on the carriage of cloths, cottons, silks, and shawls, merely against losses, and exclusive of cattle hire and land customs, respecting which owner must make a separate arrangement. Risk involved military plunder, robbery, damage by fire or water, negligence, a carrier being killed by a tiger or drowned in a river, and death by epidemic. Article carried from Poona to Hyderabad, destinations in northern India, central India, Gujarat and Maharashtra were often insured. The rates charged between 1 to 4 percent; for shawls it was six to 10 percent.[42]

2.2 Craftsman in construction activity

Increase in commercial activity in Poona created need for the building and construction of new modes and means of transportation, which resulted in need for specialization of work in construction activity and inflow of such people in city also increased in number. Following is some of the examples of traditionally engage in construction and building activity:

Beldars – they are properly quarrymen but some contract to square stones for builders; others are bricklayers and make clay walls; others labor or let dinkies on hire at 2s (Rs.1) a day for eight to twelve dinkies.[43] These are people, dug wells and blasted rocks for road making.[44]

Badhayis – Carpenters, Badhayis are carpenters and make boxes and repair tables, cupboards, and stools, and also work as laborer.[45] They are manufacturers of wooden utensils.[46]

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[42] *Ibid, pp. 146-150.*
[43] *Gazetteer of The Bombay Presidency, Vol. XVIII. Part I., Poona, 1885, p. 317.*
[44] *Gokhale Balkrishna Govind, Poona In The Eighteenth Century An Urban History, p.163.*
[45] *Gazetteer of The Bombay Presidency, Vol. XVIII. Part I., Poona, 1885, p. 314.*

Gaundis – Masons, they are masons, contractors, dealers in grain and cloth, moneychangers, writers, husbandmen and laborer. They are commonly known as bricklayers.

Jingars – a Persian term for saddle-makers, they follow a variety of callings, casting metal, carving stones, painting, making figures of clay and cloth, carving wood.

Lohars – Blacksmiths, they make and mend the iron work of ploughs and carts, make brass-bound boxes, and cups and saucers, plates cement boxes and looking-glass frames.

Lonaries – lime-burners, they are cement-makers, husbandmen and laborer.

Patharvats – they are stone-masons and carvers and make excellent images of gods and of animals, hand-mills, grindstones and rolling pins.

Chhaparbands – Thatcher, they make thatch of saga or teak leaves, hay and bamboo.[47]

Chitaris – Plasters and painters.[48]

Above are some of the examples of people traditionally involved in construction activity. During colonial time engineers and other skilled labors were also employed in this sector. Some fundamental changes were introduced in road building method as discussed in coming section.

2.3 Road Building Methods

Good roads are among the most influential agencies of society, and road-makers have proved the most effective pioneers of civilization. By opening such lines of communication, the city and the town are brought into connection with the village and the farm, markets are found for field produce, and outlets provided for manufacturers. Thus, the natural resources of the country are developed, travelling, intercourse, industry

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[46] Gokhale Balkrishna Govind, Poona In The Eighteenth Century An Urban History, p.163.
[47] Gazetteer of The Bombay Presidency, Vol. XVIII. Part I., Poona, 1885, pp. 331- 394.
[48] Gokhale Balkrishna Govind, Poona In The Eighteenth Century An Urban History, p.163.

and commerce are rapidly set on foot, and, in fact, "the road is so necessary an instrument of social well-being that in every new colony it is one of the first thing thought of.[49] Better quality of roads was one of the reasons for British military success in India. In third Anglo-Maratha War in 1818, one should give due credit to the Poona-Bombay Road fit for Artillery constructed by General Wellesley in 1804.

British introduced major changes in the road building activity, more scientific and weather resistant. Following two methods were employed in road building:

1. Macadamized Method

2. Telford Method

Macadam's practice was to lay the "road metal" directly upon the natural ground, the only preparation being the levelling of inequalities and the digging of side drains. The maximum thickness of metaling adopted was about 10 inches in depth and consisted of layer of flints or some other hard material, broken in uniform size. The broken stone was spread evenly over the road surface and consolidated by the traffic, the whole surface being regularly raked over and levelled during consolidation. Additional materials were added, as found necessary to maintain an even surface, in thin uniform layers, either after rain or after a thorough moistening with water, thus insuring a complete incorporation of the old and new metal.

Telford's special object was to ensure the entire separation of the broken stone or "road metal" from the subsoil, and for this purpose he first laid down "a pitched foundation" or "bottoming," "consisting of pieces of durable, but not necessarily hard. The largest of those pieces are set behand, with their largest sides resting on the 'formation,' and between these the smaller pieces are packed, so as to form a compact

[49] *Maxwell William H, The Construction of Roads and Streets, The St. Bride's Press Publisher, London, 1899, p. 1.*

layer about 7 inches deep in the center of the road and 4 inches deep at the sides, part of the convexity being made in this manner.[50]

apart from mechanization and new methods of road building, animal power also played sizeable role in road construction activity during concerned time period,

Khillari or Hanam Cattle, this breed are medium sized animals and are pre-eminently suited to road work in which strength and endurance combined with activity and moderate pace are requisites. Notwithstanding that they are best suited for cart work they make excellent all-round working animals when properly broken. They work well both at the mote and in the plough, especially when castrated, but their fault for these purposes is their fiery disposition rendering them difficult to control when uncastrated and half-broken. A good many of these cattle are brought annually into Ahmednagar and Poona districts.[51]

Old and new methods were complementary to each other as nature supplementary roads to main highways were constructed and maintained as per the old methods only and main highways, ghat sections and main roads in city were constructed as per the two road building methods mentioned above i.e., macadamized and Telford.

2.4 Routes Connecting Poona During British

Poona has had to depend on road communications to large extent and roads have played a considerable part in its economy since the earliest times. Road construction, when it began in the nineteenth century, was based in the first instance on a series of main trunk lines with view to connecting the district with the neighboring districts and also with Bombay, the head-quarters of the province. Later, with growing agricultural, industrial, and trading activities in the district, the necessity was felt of linking up all centers of production and distribution with the Poona city.[52]

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[50] Ibid, pp. 12-14.
[51] Hewlett K., Breeds of Indian Cattle, Bombay Presidency, Calcutta, 1909, pp. 16-21.
[52] Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 383.

The first road made by the British was the Poona-Panvel Road, from Panvel in Thana through the Bor pass to Poona. In the close of 1779 the leaders of the unfortunate expedition that ended in the Vadgaon Convention spent four weeks i.e., 23rd November - 25th December, in making a path fit for Artillery up the Bor pass. In 1804, General Wellesley constructed a good military road from the head of the Bor pass to Poona. This early two roads made by British connecting Poona to Bombay was of purely military purpose. This shows that though fall of Peshwa took place in 1818 but the road to Poona from Bombay was paved by General Wellesley in 1804 itself. After the fall of Peshwa in 1818, owing to its importance in joining Bombay and Poona, one of the first cares of Bombay Government was to improve the road from Poona to Panvel in Thana. In 1826 according to Captain Clunes, the chief lines of communication in Poona lay through Poona and Junnar.

Following are some of the important land routes connecting Poona with different parts of western India:

1. The Bombay-Ahmednagar Road of 148 miles
2. The Poona-Surat Road of 254 miles
3. The Poona-Kalyan Road of seventy-five miles
4. The Poona-Khandala Road of forty miles
5. The Poona-Junnar Road of fifty miles
6. The Poona-Dhulia Road of 201 miles
7. The Poona-Aurangabad Road of 144 miles
8. The Poona-Sholapur Road of 157 miles
9. The Poona-Belgaum Road of 241 miles
10. The Poona-Dapoli Road of ninety-seven miles
11. The Poona-Goregaon Road, sixty-six miles
12. The Poona-Nipani Road of 211 miles,

13. The Poona-Nagothna Road of sixty-four miles[53]

Since 1826 all of these leading routes have been taken up and made into fair or good roads. In 1830 the Poona-Panvel Road was greatly improved, in 1832 M. Jacquemout described the road as macadamized and kept by Pioneers in such order as would have been considered good in France. The Poona-Panvel Road the chief road work of the Bombay Government, was well metaled throughout,[54] as in the period of Maratha rule the Satara-Poona Road was prominent because Satara was residence of Chhatrapati and Poona was of Peshwa. After British conquest of Maratha territory specially Poona, at most importance and attention was given to the Poona-Bombay Road.

2.5 Nature of Changes during British East India Company

Rule of company gave primary importance to their economic and military interest in Poona as there were two cantonments in Poona, proximity to Bombay. These factors could be best understood from the following incident:

During the revolt of 1857 as well, there is reference to Poona that, Sir Hugh Rose from Bombay army went to north India to aid the Bengal army in area, two Pontoon rafts, brought with great difficulty from Poona some eighteen hundred miles away, were floated by sunset on the Jumna and the Junction with the Bengal army effected at Calpee (Kalpi).[55] This highlight role and significance of transport system and allied equipment in political and military events.

British colonial rule serves as a medium for introducing technological progress of west in Poona. In case of Transport system new all-weather roads and railways were totally revolutionary for the economic structure of Poona and its ripple effects were experienced by other sphere of human life as well. Following paragraphs attempts to give brief sketch of this progress.

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[53] Gazetteer of the Bombay Presidency, Vol. XVIII. Part II., Poona, 1885, pp. 142-144.
[54] Ibid, p. 144.
[55] Forrest George, Ed., Selections from the Letters, dispatches, and other state papers presented in The Military Department of the Government of India, 1857-58, vol-IV, Calcutta, 1912, p. 137.

The nature of means and modes of transportation since discovery of wheel remained same i.e., wheeled cart attached to the animal power. This was a basic carriage for land transport. It was applicable for both, goods and people transport, even to plough agricultural field, the plough was attached to the bullock. These forms of transportation were in use throughout the world with less degree of variety.

The change in European society at intellectual level and its challenge to the superstitious belief gave rise to the rational and scientific thinking. This resulted in scientific discoveries in different branches of studies which ultimately change the socio-economic nature of society. In concern with transportation and its development two major events are important and these are Scientific Revolution and Industrial revolution.

A rapid and far-reaching development in science; specifically, the developments occurring in the early modern period in many branches of science and regarded as having a significant influence on European intellectual culture, considered as a discrete historical process.[56]

In west European countries following factors played important role: Improved Trade, Renaissance, Reformation, Scientific thinking, and Industrial Revolution. This chain of major events is crucial to understand the economic, military, and political success of British in concern of Poona and its consequential effects on society, culture, and education.

Industrial revolution created machine-based production system. Mechanization and automation are two major steps in the industrial revolution. There is basic deference in these two processes as mechanization is simply means giving workers more efficient tools and machine with which to do their jobs. This usually reduces the number of personnel required in a shop, on track maintenance work or in an office; but does not change the basic methods of doing the job.[57]

The vehicle is an extension of the working world. It is made of steel from the steel mill, of wood from the lumber yard. It carries men

[56] *https://en.oxforddictionaries.com/definition/scientific_revolution*
[57] *Jacobson Howard Boone, Automation and Society, Philosophical Library, New York, 1959, p. 108.*

and women, but it also carries fright. It moves building materials across the continent. It brings produce from the farm to the city, cotton from the plantation to the textile factory, coal from the mine to the mill. And in turn it distributes manufactured goods to markets and to ultimate consumers. The vehicle of transportation has evolved with the factory itself. It has been mechanized apace with industry and trade.[58]

Development in transportation was a corollary to the industrial revolution and hence one can infer that technological advancement in transport vehicle was one of the important factors in enhancing the rate of commercialization in different sector of economy, especially in country like India, which was then ruled by its British colonial authority.

Ideas put forward by the scientific revolution finally culminated into the industrial revolution. Different scientific experiment in transportation were carried out in the 18th and 19th century which can full fill the demands and need of new economic, political, military, and social structure.

2.6 Arrival of Railways

Traffic in pre-rail days was carried on through highways with the help of carts and pack animals. Increasing production of agricultural and industrial output necessitated cheaper and quicker means of communication, both for passengers and for goods and commodities. A series of famines and years of scarcity conditions also necessitated the laying of railway lines for facilitating relief operations. Besides, the Poona district has been the headquarters of the Southern Command of the Indian Army, which in fact also furthered the development of railways in the district.[59]

Railways, it was believed would assist the economic development of India and provides both a market for British goods and a source of raw materials. They would also aid in the rule and protection of

[58] *Rosen S. McKee, Technology and Society, The Macmillan Publisher, New York, 1941, p. 54.*
[59] *Gazetteers of Bombay State, Vol. XX, Poona District, 1954, p.379.*

India by facilitating the defense of the frontier and by transporting troops within the sub-continent.[60]

The first idea of railroads in India was conceived in 1831-32 in the Presidency of Madras when it was proposed before the Parliamentary Select Committee on the affairs of the East India Company that in consideration of the deplorable state of communication and commerce in that part of the country both canals and railroads should be undertaken so that the whole peninsula might be crossed from sea to sea.

In 1836 Captain A. P. Cotton, Civil Engineer, Madras, advocated in a long minute the desirability of railroads in India and their superiority over other means of communication including canals. He conceived for the first time of a line connecting Madras with Bombay by a route of about 862 miles via Wallajahnagore, Arcot, Nellore, Bangalore, Bellary and Poona. In 1842 Mr. C. B. Vignoles submitted a report to the East India Company on the Possibility of constructing railways in India. That was, as Mr. Horace Bell pointed out, the eve of a period of "railway mania", and naturally such a vast country like India, with her resources and wealth, attracted the notice of many enterprising Englishmen.

The idea of constructing a line from Calcutta towards the North-West Frontiers, which ultimately matured into the East Indian Railway, first occurred to its founder Sir Macdonald Stephenson in 1841. In July 1844 he made an official proposal on the subject to the Government of Bengal. In the same month some prominent men of Bombay, mostly Europeans, discussed the question of Railways in that Presidency and formed a provisional committee of what they called the "Bombay Great Eastern Railway." The original projectors in Bombay formed in the meanwhile the Great Indian Peninsula Railway Company, and the former companies having withdrawn from field, solicited Government assistance and support early in May 1845.[61]

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[60] Kumar Dharma (Ed), The Cambridge Economic History of India, Orient Longman Publication, New Delhi, 2005, p. 738.
[61] Sanyal Nalinaksha, Development of Indian Railways, University of Calcutta Publisher, Calcutta, 1930, pp.3-6.

During 1844-45 a number of surveys were carried out for construction of railway lines in Eastern and South-West India.[62] In May 1845 the court of Directors of the East Indian Company gave their formal recognition to the desirability of railways in India and called the attention of the Governor-General in India to the following peculiar difficulties:

1. Periodical rains and inundations.
2. Continued action of violent winds and influence of a vertical sun.
3. Ravages of insects and vermin.
4. Destructive growth of spontaneous vegetation of underwood upon earth and brick-work.
5. The unenclosed and unprotected tracts of country through which railroads would pass.
6. The difficult and expense of securing the services of competent and trustworthy engineers.

It was also feared that as the people of India were poor and, in many parts, thinly scattered over large areas passenger traffic would not be substantial.[63]

In November 1844, Messrs. White Borret & Company, on behalf of the "Great Indian Railway Company" approached the Court of Directors with a proposal to construct a trunk line across Deccan with branches to the north and south. With regard to the capital required it was realized that practically nothing could be raised in India, and the projectors proposed that the government should guarantee a minimum return say 4 % from the date of opening of the railway on the sum spent, provided that any surplus of profits over 10 % would be re-invested on railway extensions by the company.

The railway proposals in India did not at the beginning inspire investors in England with that confidence in the success of the

[62] *Desai S. S. M., Economic History of India, 3rd ed., Himalaya Publishing House, Mumbai, 1994, p. 125.*
[63] *Sanyal Nalinaksha, Development of Indian Railways, p. 8.*

speculation which the originators themselves possessed. Sir Macdonald Stephenson had fully realized this and reported to the Court of Directors that the plan of a guarantee for a minimum dividend, which was "so successfully introduced by the French Government," was approved by the mercantile houses. They would "under these circumstances and these alone be prepared at once to take measures for carrying out the undertaking.[64] Following are the reasons for that East India Company enter into contracts with the private British Companies for railway construction:

1. Commercial considerations naturally played a predominant role. Lancashire cotton-mill owners wanted clean cotton from India.

2. It was felt that railways would open up vast internal markets for goods manufactured in factories established in England.

3. It was also felt that railway construction would facilitate movement of troops and military goods and would thus help England to keep India under Subjugation.[65]

The Chambers of Commerce of Manchester and Glasgow strongly represented at the same time the case for an early introduction of railways in India, particularly with a view to facilitating the cotton export from Bombay.[66]

It was in 1849 that the first contract was entered into the East India Company and the Great Indian Peninsula Railway Company (G.I.P.) for constructing an experimental railway line connecting port of Bombay with the cotton-growing track of Berar. The construction work began on 31st October 1850, and on 18th November 1852 first railway passenger left Bombay for Thana at a distance of about 21 miles. It was on 16th April 1853 that Bombay-Thana Railway route was officially opened for traffic.[67]

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[64] *Ibid, pp. 5-7.*
[65] *Desai S. S. M., Economic History of India, pp. 125-126.*
[66] *Sanyal Nalinaksha, Development of Indian Railways, p. 13.*
[67] *Desai S. S. M., Economic History of India, p. 125.*

During the last quarter of 19th century, communications have been greatly improved not only by making roads, but also by opening the Great Indian Peninsula Railway which for 106 miles passes through the district from west to east. It enters the district at Khandala near the crest of the Sahyadris which is about 2000 feet above the level of the sea. For about twenty miles the line runs through a rough and hilly country. Its next passes through the fertile plain lying between the Indrayani and Pauna Rivers twenty-one miles south-east to Poona. From Poona its course is east along the valleys of the Mula-Mutha and Bhima, forty-eight miles to Dhond and then south-east, seventeen miles to Diksal, where it enters Sholapur.

It has eighteen stations; Khandala seventy-seven miles from Bombay, Lonavla 79 ½ miles, Karla 84 ½ miles, Khadkala 89 ½ miles, Vadgaon ninety-six miles, Talegaon-Dabhade ninety-eight miles, Shelarvadi 104 miles, Chinchvad 109 miles, Kirkee 115 ¼ miles, Poona 119 miles, Loni 129 ½ miles, Urali 137 miles, Yevat 145 miles, Kedgaon 152 ½ miles, Patas 159 miles, Dhond 165 ½ miles, Borribyal 172 ¼ miles and Diksal 183 ¼ miles. The line was begun in 1856 and section from Khandala to Poona was opened for traffic on the 14th of June 1858 and from Poona to Diksal on the 15th December of the same year.

Throughout the district the Peninsula Railway line was easily made. Khandala, which is provided with a safety siding, is the fourth and Lonavla is the fifth station on the Bor pass incline. Besides ordinary buildings costing £ 250 to £ 1500 (Rs.2500-15000) with quarters for a station-master and a booking office and waiting rooms, at Khandala, Khadkala, Talegaon, Kirkee, Poona, Urali, Kedgaon, Patas and Dhond and refreshment-rooms at Poona and Dhond.[68]

2.7 Nature of Changes in Roads and Railways under British Crown

The roads in the Poona District as in 1865, have an aggregate length of 556 ½ miles. 503 miles of roads are in the charge of the Executive Engineer, the remaining 53 ½ miles being in charge of the collector. Of

[68] *Gazetteer of the Bombay Presidency, Vol. XVIII. Part II., Poona, 1885, pp. 159-161.*

metaled roads there are 142 miles, and 26 ½ miles in progress of unmetalled 334 miles.[69]

From Poona to the Madras Frontier at Hurryhur 355 Miles, it was one of the most important lines of road in this part of the country. First section of line Poona to Seerwall 26 ½ miles. Captain Sellon, executive Engineer Poona Division, and in charge of that section of the said trunk road. He stated in 1866 that the section had been bridged and drained throughout, but that the kerbing had not been as yet sanctioned. If the kerbing were completed nothing would require to be done on his section after the present year except to plant trees along the sides of the road.[70]

Between 1890 and 1900, a number of secondary main lines were laid down, after the completion of these through lines of communication was undertaken the work of constructing feeder roads for railways and connecting important places.[71]

The main trunk lines as well as the important feeders were usually constructed, metaled and maintained by the Provincial Government, while the other were left to the local bodies to be financed out of their own funds. During the 20th century, particularly after 1914 i.e., the beginning of world war I, road development assumed great importance with the rapid growth of the motor transport system. Poon as the second headquarter of the Provincial Government and the headquarter of the Southern Command, saw good road schemes executed during the period, with the result that considerable advancement in the economy of the district took place. Poona District, about 222 miles of metaled and 913 miles of un-metaled roads build, Metaled roads places the district in communication with Nasik, Ahmadnagar, Sholapur, Belgaum, Satara and Kolaba District. Except for 341 miles of un-metalled roads, all the roads are maintained by the Public Works department. The chief of them is the Bombay-Poona mail road to the foot

[69] *Report of proceedings at the Conference held at Poona 1865, Public Works Department, Government of Bombay, 1866, pp. 145-147.*
[70] *Conference on the State and progress of Public Works in the Presidency of Bombay, Government of Bombay 1866, Bombay, 1867, p. 3.*
[71] *Gazetteer of the Bombay Presidency, Vol. XVIII. Part II., Poona, 1885, pp. 144-145.*

of the Borghat, the Poona-Ahmadnagar Road, the Poona-Sholapur Road and the Poona-Nasik Road.[72]

Amount spend on work in progress during the financial year 1914-15 - Poona-karakwasla Road Rs. 17,000/-, bridging the Poona-Sholapur Road Rs. 20,000/-[73]

Bridging Poona-Sholapur Road between Diksal and Indapur Rs. 50,000/- Bridging over Parit Nalla in the Poona District Rs. 14,000/-[74] Bridge at Chehedi over the Darna River on the Poona-Nashik Road Rs. 1,00,000/-, bridge on the Ghod River on the Poona-Nashik Road Rs, 1,00,000/-[75] Improvements to Poona-Sholapur Road Rs. 50,000/-, bridge on the Ghod river on the Poona-Nashik Road Rs. 50,000/-, improvements to Poona-Bangalore Road Rs. 23,000/-[76]

Improvements to the Poona-Nashik Road Rs. 40,000/-, causeway across the sina on Poona-Nagar Road Rs. 62,000/-, causeway over the Sonar nala on Poona-Sholapur Road Rs. 18,000/-, improvements to Poona-Bangalore Road Rs. 45,000/- Improvements to Bombay-Poona Road Rs. 14,000/-, Improvements to roads provincialized in the Poona District Rs. 40,000/-, Improvements to Poona-Sholapur Road Rs. 37,000/- and Shaikh Sulla Bridge, Poona Rs. 3,50,000/-[77] this numbers indicate the amount spend in one financial year on the roads building and maintenance activity in or related to Poona.

Tarring roads around Sasson Hospital, Poona Rs. 36,000/-, Improvements to Poona-Ahmednagar Road Rs, 12,000/-, Improvements to Bombay-Poona Road Rs. 24,000/-, Improvements to Hadapsar Nira Bridge Road Rs. 12,000/-, Improvements to the road from Ganeshkhind to Pashan Tank Rs. 31,000/- Improvements to the Poona- Khadakwasala Road Rs. 17,000/-, Improvements to the Poona-Sholapur Road Rs.

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[72] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 383.*
[73] *Budget of the Government of Bombay for the Year 1914-15, p. 3.*
[74] *Budget of the Government of Bombay for the Year 1915-16, p. 3.*
[75] *Revised Financial Statement for the year 1918-19, Financial Department, Government of Bombay, 1918-19, p.42.*
[76] *Budget of the Government of Bombay for the Year 1920-21, p. 46.*
[77] *Budget of the Government of Bombay for the Year 1921-22, pp. 65-66.*

12,000/-[78] From Poona to Naraingaon 47 miles 2 ½ furlongs, Poona to Malligaum is 170 miles, a good country road tolerable for carts all the way. Poona to Oorun (Uran) by Bhor ghat was 85 miles road was metaled and bridged.[79]

Development has been particularly marked during the last twenty years i.e., 1930s and 1940s.the total road mileage has increased from 1,793 miles in 1933 to 2,718 miles in 1949-50: metaled roads from 417 to 755 miles, and un-metaled roads from 1,376 to 1,946 miles. The metaled roads form 27.8 % of the total road mileage.[80]

The surface of metaled roads is everywhere water bound macadam, except that within the municipal limits of Poona and other municipalities superior surfaces have been constructed. The un-metaled roads are either murum or mere earth roads. Murum is crumbled trap rock which gives a fair surface and can sustain light motor traffic during all seasons. Earth roads are only fair-weather roads.[81] Since Poona was Headquarter of District Road quality within municipal limit was good and accessible in all weather conditions. Poona possessed important place in the British administration of India because it had ammunition factory, two cantonments viz. Poona cantonment and Khadki cantonment apart from military significance it was headquarter for Poona district and formerly virtual capital of Maratha State.

The Motor Vehicle or Horseless Wagon, the oil and water tanks with which it is supplied are placed under the seat, the propelling force being furnished by petroleum. The style of motor vehicle varies, according to the ingenuity of the builder or the end sought to be achieved; in some cases, it is a coach; in others a carriage, buggy or wagon. The propelling machinery may be attached to any kind of vehicle. In some instances, the vehicle has three wheels, one in front and

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[78] Budget of the Government of Bombay for the Year 1925-26, p. 94.
[79] Burrows G. R. S., Brigadier-General, Quartermaster-General, Routes in the Bombay Presidency, 1876, pp. 443-449.
[80] Imperial Gazetteer of India, Provincial Series, Bombay Presidency, Vol. 1, 1909, p. 497.
[81] Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 383.

two behind; in other cases, four.[82] This was major invention and outcome of the revolution that had took place in Europe which changed the face of road transportation and made it more convenient to meet the industrial demand that had increasing in those days as mechanical power was replacing animal power in most of the industries in those days as the case of motor vehicle did in the transportation.

Motor vehicle in its earlier versions may look simple or had less carrying capacity but its development or upgraded versions helped in the mobilization of the resources and people for one place to another. Motor vehicles sustained their significance even after the introduction of railways as the motor vehicles were relatively compact and more mobile in their nature in comparison to the railways. Hence the motor vehicles experienced development in their technology since it able to maintain its utility.

The Great Indian Peninsula starts from Bombay and bifurcates at Kalyan towards Calcutta and madras, climbing the Ghats by the Thal and Borghat passes. The Calcutta and Madras lines are connected by the Dhond-Manmad section, which carries traffic between Madras and Northern India without compelling passengers and goods to descend and re-ascend the Ghats.

At the close of the year 1904 there were 4,137 miles of railways in the Presidency. In that year there was one mile of railways to every 46 square miles of country, compared with one to every 61 in 1901. The chief railways are the Great Indian Peninsula, the Bombay, Baroda and Central India and the Southern Mahratta; the first two with a 5½ feet-gauge, and the last with a metre-gauge line.

The south of the Presidency is served by the Southern Mahratta Railway, which has two branches. One starts from Poona and runs south to Londa, where it doubles back towards Dharwar, Hubli and thence south-east to Harihar, where it joins the Mysore State Railway, with a short extension from Londa to Castle Rock to connect Hotgi on the Great

[82] *Kirkman Marshall M., Origin and Evolution of Transportation, The World Railway Publishing Co., New York, 1904, p. 521.*

Indian peninsula Railway's Madras line, with Gadag and Hubli through Bijapur, this is a state railway on the metre gauge, worked by a company.[83]

The Great Indian Peninsula Railway Co. laid their main line from Khandala to Bhigavan, a distance of 106 miles, in the year 1858 and the Southern Mahratta Railway Co. laid the metre gauge route from Poona to Nira in 1886. The Dhond-Baramati narrow gauge section was constructed in 1913. The route mileage of railways in Poona district stands at 186.1 miles. As a result of the re-grouping of the railways the Great Indian Peninsula Railway has now been grouped under the Central Railway and the Madras and Southern Mahratta Railway, which name arouse out of the amalgamation in 1907 of the Madras and the Southern Mahratta Railways, has been allocated to the Southern Railway. Of the 186.1 miles, 138.1 miles are under the central Railway and the rest 48 miles are under the Southern Railway.

The Southern Railway besides Poona, it has 10 stations, namely Ghorpuri 2 miles from Poona, Saswad Road 7 miles, Phurangi 11 miles, Alandi 16 miles, Gurholi 21 miles, Rajewadi 25 miles, Jejuri 32 miles, Dondaj 37 miles, Walhe 42 miles and Nira 48 miles.

Eight out of the fourteen talukas of the district, viz., Mawal, Mulshi, Haveli, Dhond, Baramati, Indapur, Purandar and Poona City, have been connected by railways with the cities of Poona and Bombay and the district of Ahmednagar, Satara, Sholapur and Nasik. The other six talukas of the district viz., Bhor, Junnar, Ambegaon, Sirur, Velhe and Khed have no railway communication. These talukas are served mostly by motor bus traffic. A safety siding has been provided at Khandala station. There was a railway workshop at Lonavala.[84]

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[83] Imperial Gazetteer of India, Provincial Series, Bombay Presidency, Vol. 1, 1909, pp. 75-76.

[84] Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, pp.380-381.

Table No. 2.1 South-East Line of Great India Peninsula Railway[85]

Section of Railway	Date of Opening	Miles
Kalyan to Karjat (Palaadhari)	12.05.1858	30.60
Karjat to Khandala (Bhor Ghat)	14.05.1858	13.20
Khandala to Poona	14.06.1858	42.01

2.7.1 Major Contracts

Dated the 21st December 1900 (called the Principal Contract) between the Secretary of State and the Great Indian Peninsula Railway Company, as to the maintenance, management and working by the company, as one undertaking of the railways known as the Great Indian Peninsula Railway system and the Indian Midland Railway system and the subsidiary lines included therein. Supplement to the contract of 1900 dated the 24th April 1903, between the secretary of State and the Great Indian Peninsula Railway Company, as to the adoption of 1s. 4d. per rupee as the "prescribed" rate of exchange.[86]

Table No. 2.2 Madras and Southern Mahratta railway (Meter Gauge) Poona Branch[87]

Section of Opening	Date of Opening	Miles
Londa to Belgaun	21.03.1887	31.80
Belgaun to Miraj	22.12.1887	85.88
Miraj to Koregaon	02.05.1887	76.00

[85] *Bombay, Baroda and Central Railway System, Railway Board, Government of India, Calcutta, 1918, p. 65.*
[86] *Bombay, Baroda and Central Railway System, Railway Board, Government of India, Calcutta, 1918, p. 67.*
[87] *Ibid, p. 86.*

Koregaon to Ghorpuri	18.11.1888	83.07
Ghorpuri to Poona	04.10.1890	00.91

The railway system, as it developed in this district, leaves entirely untouched the northern talukas of Sirur, Khed and Junnar; and does not cover adequately the other talukas. Under these circumstances, without a considerable development of feeder roads, it is obvious that railway traffic could not develop and the railway facilities be properly utilized.[88]

It seems, however, that, the, there have been a considerable decrease in the metaled roads mileage during the last ten (1923-33) years. The metaled and bridged road mileage is undiminished; but on account, it is said chiefly of financial stringency, the district local board authorities have been unable to keep in repair the minor metaled roads. The result has been that a large number of them have deteriorated to the level of unmetalled roads. According to the latest statistics, supplied by the district local board authorities, there are in the district approximately 435 miles of metaled roads. This means that the mileage of roads metaled but unbridged, has decreased during the last ten years (1923-33) from more than 400 miles to less than 225 miles.[89]

During famine as well, transport related work facilitate circulation of food and created employment in road construction activity, Owing to the excellent system of communications which now brings every portion of the Presidency into close connection with the great market, the supplies of food were at all times sufficient, and it cannot be too frequently repeated that severe privation was chiefly due to the dearth of employment in agriculture and other industries, but the failure of the harvest caused loss of ordinary income in an enormous area, and to an unprecedented extent.[90] Indian Famine Commission, 1898, Acting

[88] *Gadgil D. R., A survey of The Marketing of Fruit in Poona, GIPE, Poona, 1933, pp. 122-123.*
[89] *Ibid, p. 123.*
[90] *Report on the Famine in the Bombay Presidency, 1899-1902, Vol. I, Bombay, 1903, p. 3.*

Collector of Poona States that during the famine stone breaking and road building activities were initiated to provide employment to people.[91]

We can clearly observe the effects of international relations affecting the policies in Poona, as the post first world war period experienced less attention from administrators to the maintenance of transport system. British colonial interests can be observed vividly through their Transport infrastructure and policies.

2.7.2 Tree planting along the road side

Mr. Arthur, Collector of Sattara said that the system which had been adopted in sattara was that some of the planting work required in connection with roads executed from funds supplied for the repair of any road by the Executive Engineer, who handed the tree planting on the road over to the Assistant in charge of the Talooka, who in turn put it into the hands of the patels of the several villages. In some cases, the patels got contributions from the villages themselves. When trees were planted the owners of fields adjoining the road were granted right of collecting the fruit of fruit-bearing trees along the edge of their properties, provided they looked after all the trees planted within their respective properties along the road. The Honourable Mr. Ellis added that in some cases where trees were planted along the edge of a field the owner of the field contributed a certain sum towards the expense of watering the trees, in return for which he was to have the benefit of the fruit. When the tree died, he was to have the wood of it, but he was never to cut it down until it died. In this discussion, Captain Sellon said that he would prefer undertaking the planting of the tree alongside of road himself to handing it over to the civil officer with view merely to the planting being done, and if he had the money, he would do it at once. He thought his department could protect the trees better than the civil officer because his department had always an establishment on the road, and parties of men were kept up at distances of a few miles. Commander in chief said that principal thing he would be afraid of in the Zemindaree system of planting trees was the want of uniformity; he did not speak of

[91] *Indian Famine Commission, 1898, Appendixes, vol. III, Calcutta, 1898, p. 106.*

uniformity in the kind of trees to be planted, but he referred to regularity in planting and watering trees.[92] This shows the complex nature of transport system in India during British time period. This tree planting aspects is good example for studying conflicting interest at same time issues involving ecological, economical, administrative, political and social concern involved in it.

2.7.3 Technological improvement of Transport System from 1920s

The first electrified line, in India, was opened in February 1925, on the Great Indian Peninsula Railway, between Victoria Terminus in Bombay and Kurla, via Harbour Branch. In 1929 the electrification of the Great Indian Peninsula Railway, main line, up to Poona from Kalyan, across the Ghats, was in Progress.[93] The track between Poona and Bombay is electrified and train services between Khandala and Poona are run by electric energy.[94] Electrification of rail tracks and asphalt road building methods were also introduced in Poona in 1930's on experimental basis. Though at very preliminary level but these changes kept Poona relevant in economic administrative life of Western India.

2.8 Transport Regulation

Regulation is important for smooth functioning of any system and in case of Transportation it is not just about maintain order in system but ensuring economic and strategic control over governed territory. This aspect of transport regulation is crucial to understand in concern of British period. If we merely look at years in which Motor vehicle acts were introduced in 1914 and 1939, these years itself indicated global political and military policy of British administration.

British Government or any ruling authority attempts to derive legitimacy by making and effectively implementing rules and regulation, subject of regulations could be anything and regulation also serve as a tool of exercising ground level direct control over the masses.

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[92] *Conference on the State and progress of Public Works in the Presidency of Bombay, Government of Bombay 1866, Bombay, 1867, pp. 3-4.*
[93] *Sanyal Nalinaksha, Development of Indian Railways, p. 332.*
[94] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p.380.*

Regulation of railways were more complex as there were multiple contracts with private companies were signed for building, operating and maintaining railways.

This contract system helped in rapid expansion of railways but at the same time tremendous outflow of Indian money and unsynchronized development took place in relation to the railway and road network as both work complimentary to each other, this and other such concerns are discussed in detail in this transport regulation section.

2.8.1 Road Transport

By the time of early 20th century need was felt to regulate the transport system in India, the number of motor vehicles had gone up and British government brought Motor Vehicle Act of India 1914, before the introduction of the act, law regarding the transport regulation was prevailing at provincial level, hence the 1914 act was first in all British India level. Then the Motor Vehicle Act of India 1939 was also introduced after rectifying the mistakes occurred during the previous act.

The development of the use of motor vehicles as the result of the increasing number of persons who seek to travel by this means both within and outside the limits of individual provinces, has emphasized the desirability of re-examination the Indian Legislation on the subject. At present the law is contained in six separate provincial Acts, viz. Bengal Act III of 1903, Bombay Act II of 1904, Burma Act II of 1906, Madras Act I of 1907, The Punjab Act II of 1907 and The United Provinces Act II of 1911, which though exhibiting no important differences of principal, are not identical in form. In the interest of simplicity and in order that owners of motor cars may be saved the inconvenience of reference to different provincial Acts, it is thought that the time has now come when the law on the subject may usefully consolidated.[95]

The Indian Motor Vehicle Law Being Act No. VIII of 1914

This Act Passed by the Governor General of India in Council on the 28th February 1914 also called as Motor Vehicle Act of 1914.

[95] *Motor Vehicle Law of India 1914, p. 1.*

This Act, except Part III thereof, extends to the whole of British India, including British Baluchistan, the Sonthal Pargana of Spiti. Part III extends in the first instance only to the Provinces of Madras, Bombay, Bengal, the United Provinces of Agra and Oudh, the Punjab, Burma, Bihar and Orisa, the North-West Frontier Province and Delhi. The Local Government of any other Province may, by notification in the local official Gazette, extend Part III to the whole or any part of such province.

1. Motor vehicle

Includes a vehicle carriage or other means of conveyance propelled, or which may be propelled, on a road by electrical or mechanical power either entirely or partially.

2. Public place

Means a road, street, way or other place, whether a thoroughfare or not, to which the public are granted access or ever which they have a right to pass.[96]

Motor Vehicle Act being Act No. IV of 1939

It extends to the whole of British India. the previous Motor Vehicle Act 0f 1914's Part III, was not applicable to British Baluchistan, the Sonthal Pargana of Spiti, but this 1939 Act for Motor Vehicle was applicable to whole British India.

Provisions of General Application

It shall come into force on the 1st day of July, 1939; but Chapter VIII shall not have effect until the 1st day of July, 1943.[97] Chapter VIII deals with the provisions for Insurance of motor vehicles against Third Party Risks. The previous Motor Vehicle Act of 1914 define basic terms like motor vehicle, public place and road but in the Motor vehicle Act of 1939 elaborate detailing were made for regulating motor vehicles in British India. Different types of motor vehicle were identified and rules were made accordingly like delivery van, goods vehicle, heavy transport

[96] *Ibid, pp. 2-3.*
[97] *Motor Vehicle Act of 1939, Manager of Publication, 1939, p. 7.*

vehicle, light transport vehicle, motor car, motor cycle, and tractor. In addition to this categorization another two broad division was made to regulate motor vehicle i.e., Private carrier and Public carrier.[98]

These two acts serve as important legal document as on the basis of these only later on major transport policies were formulated like establishments of Regional Transportation Office and utility of transport regulations in times of crisis were highlighted as these laws facilitated colonial government to effectively control the movements of goods and people during the time of World Wars.

2.8.2 Railway Regulation

By the beginning of 1845 provisional committees were formed for the East Indian Railway and the Great Indian Peninsula Railway and prospectuses were laid before the Court. The Committee of East Indian Railway held that the guarantee to the extent suggested 3 % then or some equivalent pecuniary assistance and indication of the approval of the Court of Directors was "a preliminary and indispensable condition of the proposed measure. The suggestions for guarantee or alternative assistance now included provision for interest on Capital raised even during the period of construction, which the first proposals from Messrs. White Borret & Company did not include.

On the 17th of August 1849, the first contracts between the East India Company and the East Indian and Great Indian Peninsula Railway Companies were signed. The substance of the first agreement was that the Government relieved the shareholders of all risk and gave them some expectation of profit over and above the guaranteed interest and claimed in return reasonable powers of control and ultimate right of purchase. The principal defects in the contracts lay in making no provision for the State's participation in the profits, in permitting a fixed rate of exchange to govern the transaction, in allowing the guarantee to run from the day of deposit of money and not from the date of opening of the lines, in providing little check on the capital expenditure of the companies, and in granting the private enterprises opportunities for enjoying the full benefit

[98] *Ibid, pp. 7-12.*

of unearned increment in the value of the property when the time for the State purchase of the railways came. Following are some important provisions of the Contract:

1. The contract was for 99 years, and a guarantee of interest on all money paid into Government treasury was given for the whole period.
2. The amount advanced for the guarantee was to be repaid from the profits of the railways, half the excess over the guaranteed minimum being so applied, the other half going to the shareholders.
3. The government retained the power, after 25 or 50 years, of purchasing the railway at the mean market value in London of the shares during the three years preceding the purchase; but the railway companies could surrender their lines at any time to Government, claiming the whole amount spent on the undertakings back either in a gross sum or in annuities.
4. Land was to be provided free by the State for the railways and for all works connected therewith.
5. The route, gauge, construction, gradients, etc., must all be sanctioned by Government and alterations should be carried out as required by the State.
6. The Government had entire control and supervision of the working, as well as free access to all books, papers and accounts and powers to approve the rates and fares, and to reduce them when the railway paid more than 10 percent.
7. A Government Director with the power of veto on all proceedings would sit on all Railway Boards of Directors. Mails and Postal servants would be carried free and troops and military stores, etc., at reduced fares and rates.
8. Government bound itself to promote all necessary legislation.

9. All money transactions were to be calculated at the rate of 1s. 10d. to the rupee.[99]

The government bound itself under the first terms of contract to promote such legislation in India as might be necessary to enable the companies to fulfil the objects of their undertaking.[100]

By the time of 1869 Government of India realized the drawbacks of old guarantee scheme for railway construction in India, hence government decided to build railways on the basis of state construction and management. This is considered as second phase in Indian Railway Construction.

After 1869 government units began to build and run lines also. Princely states, provinces, and even district boards constructed some railways. And between 1869 and 1882, because it felt it could construct more cheaply, the central government itself built several lines; of these, it managed some directly and leased others to private companies. In 1879 after the government purchased the East Indian Railway, it initiated a policy of gradually taking over ownership of the large companies when their contract ran out; management, however, was left in private hands.[101]

Lines open to traffic the supervision was arranged in 1881-82, since Great Indian Peninsula Railway line came under Government of Bombay.[102] By this arrangement provincial government were entitled for supervisory task. From 1882 third phase in railway construction began with the revival of Companies, as government felt need of private companies in the expansion and operation of Railways some new companies were established and contracts were revised with old companies.

In 1882 Southern Mahratta Railway Company was formed, and this Company laid their Poona to Nira Metre gauge line in 1886, connecting Poona to major political and economic centers in South India.

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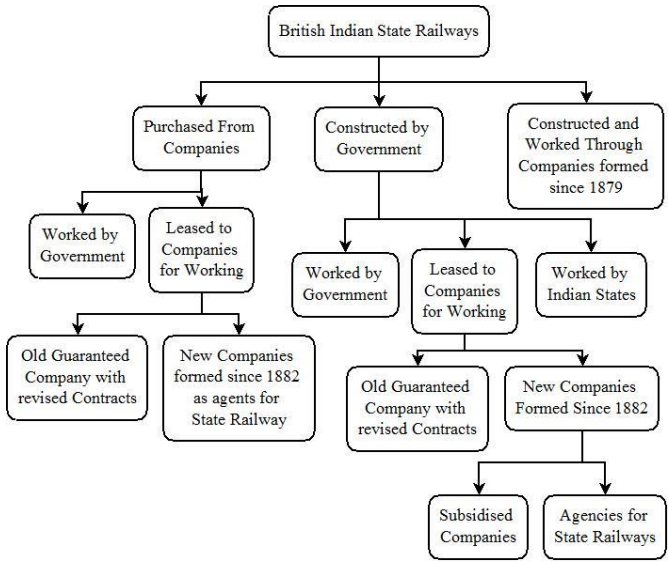
[99] *Sanyal Nalinaksha, Development of Indian Railways, pp. 7-17.*
[100] *Ibid, p. 41.*
[101] *Kumar Dharma (Ed), The Cambridge Economic History of India, p. 739.*
[102] *Sanyal Nalinaksha, Development of Indian Railways, p. 111.*

Southern Mahratta Railway Company was State Railways constructed through Agency Companies.[103] Agency Companies: Companies acting as agents of Government for working State Railways already constructed and successfully worked by Government, or State Railways acquired by Government from old companies; and for constructing and working new lines of State Railways on behalf of Government, in some cases raising the capital on the guarantee and responsibility of Government. Eight Companies of this description have been formed from 1879 to 1908.[104]

Regulation of transport was not only the administrative requirement of British colonial authority but it was political and military necessity of British ruling authority to have defined code of conduct in concern of road transport to cater it economic interest primarily and the political and military concern as well.

Following chart will help in understanding the nature of Railway Administration in British India State[105]:

Chart No. 2.3 Railway Administration in British India


British Indian State Railways
Purchased From Companies
Constructed by Government
Constructed and Worked Through Companies formed since 1879
Worked by Government
Leased to Companies for Working
Worked by Government
Leased to Companies for Working
Worked by Indian States
Old Guaranteed Company with revised Contracts
New Companies formed since 1882 as agents for State Railway
Old Guaranteed Company with revised Contracts
New Companies Formed Since 1882
Subsidised Companies
Agencies for State Railways

[103] *Tiwari Chandrika Prasad, The Indian Railways, Self-Published, Ajmer, 1921, pp. lix, lxv.*
[104] *Ibid, p. 19.*
[105] *Tiwari Chandrika Prasad, The Indian Railways, Self-Published, Ajmer, 1921, p. lxvi.*

The result was a complex system of ownership and management. There were state lines worked by private companies, state lines worked by the state, lines owned by companies guaranteed under old contracts, lines owned by companies under new contracts, district board's lines, assisted companies' lines, princely state lines worked by companies, princely state lines worked by state railway agencies, and lines owned and worked by princely states. In 1902, for example, the Indian railways were worked by thirty-three separate administrations including twenty-four private companies, four government agencies, and five princely states.[106]

Since 1900 the Great Indian Peninsula Railway has been a state line, worked by a company.[107] As a result of the re-grouping of the railways the Great Indian Peninsula Railway has now been grouped under the Central Railway and the Madras and Southern Mahratta Railway, which name arouse out of the amalgamation in 1907 of the Madras and the Southern Mahratta Railways, has been allocated to the Southern Railway. Of the 186.1 miles, 138.1 miles are under the central Railway and the rest 48 miles are under the Southern Railway.[108] Broadly, the north of Poona was under Great Indian Peninsula Company and the South was under the Madras and Southern Peninsula Railway Company.

The contract with the working companies were terminated in due course and the management of companies was taken over directly by the Government, The Great Indian Peninsula Railway Company on 1st July 1925 and the Madras and Southern Mahratta railway Company on 1st April 1944.[109] Since onwards the Railway lines in Poona City was owned and managed by Government.

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[106] *Kumar D., The Cambridge Economic History of India, p. 739.*
[107] *Imperial Gazetteer of India, Provincial Series, Bombay Presidency, Vol. 1, 1909, p. 74.*
[108] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p.380.*
[109] *www.indianrailways.gov.in/railwayboard/uploads/codesmanual/ADMIN_FINANCE/AdminFinanceCh1_Data.htm*

2.9 Administrative aspect of Transportation

Transportation was one of the important factors in 19th century India, in spreading awareness among Indian people about their political exploitation. The 19th century witnessed major changes in road building method and all together new way of travelling i.e., Railways. Simultaneously it was the period in which rapid expansion of existing road networks and laying of railway lines took place.

Though earlier development in roads and railways constructing activity was dominated by the British imperial requirement, later on it served as effective means for bringing Indian masses closer to each other. As one could observe the role of British education system in bringing awareness among Indian people about their social condition and urge for its betterment was immediately felt by educated people in India. Same education system helped Indians in realizing their civil rights.

2.9.1 Transportation and Development of Local Self Government

Local Self Government means the management of local affairs by such local bodies as has been elected by the people living in that locality. The importance of local self-government has been emphasized by political thinkers and administrators of all ages.

The Charter of 1726 provided for the setting up of a Mayor's Court to supersede the corporation. The powers of the Mayor's Court were more judicial than administrative. The Charter Act of 1793 put the Municipal institution on a statutory basis. The Governor-General was empowered to appoint Justice of Peace in the presidency town. This justice of Peace was given powers to levy taxes on houses and lands to meet the cost of police, scavenging and repair of roads.[110] Between 1840 and 1853 the rate-payers were given the right to elect members of corporations, but the process was reversed in 1856 when all executive power, in the Bombay town, was concentrated in the hands of a nominated commissioner. A similar procedure was followed in Madras and Calcutta.

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[110] Grover B. L., A new Look at Modern Indian History, 13th ed., S. Chand & Company, New Delhi, 2014, p. 359.

Poona Municipality

Poona was the residence of Peshwa, hence attracted people from different regions. In British administration it received municipal status in 1857, since onward local self-government contributed immensely in the construction and maintenance of roads within municipal limit.

Poona consists of 5 parts i.e., old city, Shivaji Nagar, Poona Cantonment, Kadki Cantonment and suburb.[111]

After the 1850 Act passed by the British government, Bombay presidency took initiative in forming municipal bodies in other than the presidency town and one of them was Poona.

In 1854 first attempt was made with the initiative taken by District Collector, for this Collector called for an unofficial meeting of people living in Poona and explained them about 1850 Act and its usefulness to Poona. As outcome of the meeting, 1191 people with their signature sent a letter in May 1854 to Bombay government in Favor of forming municipality in Poona.[112]

On this background people started analysing the 1850 Act and one point was raised that if this municipality come to an existence, then there will be increase in tax burden in shape of Property Tax, on this issue another meeting was held in Poona but of those people who are not in favour of forming municipal body in Poona and as result of this meeting, in 1855 a letter was sent against the formation of municipal committee in Poona with the signature of 450 people to the Bombay government.[113]

The above-mentioned event postponed the municipality formation process for next two years in Poona, but in between this period Poona got new District Collector and with these again certain actions like convincing people about the necessity of municipal body and hence in 1856 another meeting was called and letter was sent to Bombay

[111] *Mangudkar M P (Dr), Pune Nagar Sanstha Shatabdi Grantha, Pune Municipal Corporation, Pune, 1960, p.35.*
[112] *Ibid, p. 48.*
[113] *Ibid, p. 48.*

government, appealing municipal status to Poona. Bombay government called for an objections or suggestions on demand made by people of Poona, but this time without any hurdle demand was granted and Bombay government declare establishment of Poona municipality on 20 May 1857 and municipality will start operating from 1 June 1857.[114]

On 1 June 1857, though the Poona Municipality starts operating but because of 1857 revolt and considering political conditions of Poona during revolt Collector was not in position to pay attention to the implementations of Poona municipality, henceforth the actual working of Poona municipality begun in May 1858.[115]

Public Works Department

With the formation of municipal body in Poona city, it got Public Works Department and hence construction and maintenance of public utility works received special attention.

Table No. 2.4 Expenditure on Public Works[116]

Year	Public Works establishment	Road Widening and opening	Repairs and maintenance
1885	3,229	-	25,409
1895	4,225	19,873	24,860
1905	4,734	22,582	34,153
1910	5,136	17,008	42,202
1915	7,036	11,882	48,099
1920	14,087	6,089	61,441
1925	20,489	92,429	50,516

[114] *Ibid, p. 50.*
[115] *Ibid, pp. 50-51.*
[116] *Gadgil D. R., Poona: A socio-economic survey, part-II, Gokhale Institute of Politics and Economics, Poona, 1952, p. 243.*

1930	24,768	96,583	80,494
1935	26,682	89,201	1,11,278

In 1885 there were 36 miles of roads and 18 miles of lanes, in all 54 miles. In 1915 there were 68 miles of roads and lanes, in 1936 there were 92 miles roads and lanes.[117]

To remove congestion and facilitate the growing traffic in the city, new roads were constructed and old ones were widened, the following are the important roads schemes:

East-West Road: The scheme was started in 1920, and a number of properties had to be acquired for the purpose. The total receipts and outlay on the scheme from 1920 to 1937 amounted to Rs. 8,19,031 and Rs. 10,52,668 respectively. The scheme is expected to be a financial success in view of the great demand for adjoining sites, and the high prices paid for them.

Tilak Road: The scheme was completed in 1933. The total receipts from the sales of plots upto 1937 amounted to Rs. 2,19,872 while the total cost of the scheme was Rs. 2,71,794.

Phule Market to Govind Halwai Chowk Road: This road was earlier known as Reay Market Road, the scheme was approved by Government, and the Municipality was allowed to float a loan of Rs. 1,50,000 for the purpose.

The other schemes to be noted are the Ganesh Road and the North- South Road schemes. In 1930s the Municipality had completed the asphalt road scheme at a total cost of Rs. 11 lakhs. The first experiment was made in 1934 when 1.60 miles of road were asphalted at a cost of Rs. 26,333. The main work was started in 1935, and was spread over a period of four years. It was expected that as a result of the scheme, the recurring charges on repairs and maintenance would decrease.[118]

[117] *Ibid, p. 243.*
[118] *Ibid, pp. 243-244.*

Road Maintenance

It was perennial task entrusted with the local government to maintain the roads and adequate amount was allotted for this purpose, mainly road cleaning and watering, this road watering was necessary in the 19th century as most of the internal roads in Poona city were of kaccha category hence to maintain it watering and cleaning was required function.

Road Cleaning:

The expenditure on road cleaning consists of the payment to road sweepers and the cost of removing kachra to the depot.

Table No. 2.5 Expenditure on Road Cleaning

Year	Expenditure on Road Cleaning	Year	Expenditure on Road Cleaning
1885	13,491	1925	76,159
1895	14,514	1930	93,451
1905	31,770	1935	98,479
1915	31,582	1939	1,04,327
1920	33,747	1940	1,02,506

In 1885 there were 150 sweepers who cleaned 38 miles of roads daily and 16 miles of lanes every second or third day. In 1901 the number had increased to 203 sweepers who were paid from Rs. 4 to Rs. 5 each. About Rs. 950 were disbursed every month. In 1936-37 there were 270 sweepers who were paid from Rs. 10 to Rs. 9 each their monthly wage-bill amounted to Rs. 2,573.[119]

[119] *The Administration Report of the Poona Municipality for the year 1939-40, p. 7.*

Road Watering:

Before the introduction of Telford method of road building or of superior surface for roads, the roads within city municipality were watered to avoid dust, for this purpose municipality had maintained separate staff and vehicles to perform this activity.

Table No. 2.6 Expenditure on Road Watering

Year	Expenditure	Year	Expenditure
1885	2,671	1930	11,190
1895	3,681	1935	13,375
1905	3,556	1939	3,941
1915	4,660	1940	4,186
1920	6,267		

Earlier the work was done by carts and Bhistis. In 1885, about 2,60,600 sq. feet length of roads was watered. In all, 15 wards were served, 12 wards twice in a day, 2 wards once, and one ward thrice in a day. In 1930s the work was done by motor Lorries and carts. There are about seven water sprinklings Lorries.[120] After analyzing above chart one can easily infer that expenditure on road watering reduced since the 1935 as good surface quality roads were built in city.

[120] *Ibid, p. 7.*

Table No. 2.7 Income and Expenditure of Municipalities in Poona on Roads[121]

Years	Income			Expenditure		
	Tax on Animals and Vehicles	Tolls on Roads and Ferries	Total Income	Collection of Tolls on Roads and Ferries	Roads	Total Expenditure
1922-1925	19,725	12,868	32,600	3,070	1,83,590	1,86,660
1930-1933	37,263	21,756	59,577	4,039	2,32,578	2,36,617

The most ambitious attempt that we know of in this direction was the Poona Motor Owner's Association which was founded in the year 1930.[122]

As per the Survey conducted by Gokhale Institute for Motor Bus Transportation in Six Districts following data related to Bus Owner Associations was presented[123]:

Table No. 2.8 Bus Owner Associations

District	No. of Association	No. of Bus Owners in the Association	Total no. of Buses in the Association
Poona	10	71	140
Poona City	(4)	(35)	(71)

[121] *A Survey of Motor-Bus Transportation in Six Districts of the Bombay Presidency, GIPE, Poona, 1935, pp. 127-128.*
[122] *Ibid, p. 129.*
[123] *Ibid, p. 134.*

Sholapur City	7	29	47
Ahmednagar	7	63	112
Satara	6	38	81
Kolaba	6	49	106
Ratnagiri	12	143	209
Sangli State	3	15	45
Total	51	407	740

2.9.2 Jurisdiction of Roads

The entire road system was maintained by three different authorities, namely the State Government, the Poona District Local Boards, and the various municipal bodies within the district.

State Roads

The state roads have a length of 478 miles and form 17.6 % of the total road mileage of the district. They are mostly big arterial roads serving the needs of the state in general and the Poona district in particular, and they have been all-India importance. They are either emanating from Poona or pass-through district. The national highways namely the Poona-Bombay Road, the Poona-Sholapur Road, the Poona-Nasik Road and the Poona-Bangalore Road, the state highways namely the Poona-Ahmednagar Road and two major district roads namely the Poona-Baramati and the Poona-Satara Road come under this category. The maintenance and development of these roads are undertaken by the State Government through its Public Works Department and the charges are met from the State revenues. Almost the entire length of these roads is metaled and only 19 miles remain to be metaled.[124]

[124] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, pp. 384-385.*

Local Board Roads

The District Local Board roads have a length of 2,072 miles, which is 76.2 % of the total road mileage of the district. These roads are spread over the various talukas of the district and their maintenance is vested in the District Local Board. Road falling in this category are local roads and cart tracks, mostly fair-weather roads, which link up various centres of cultivation industry and trade with the national highways, railway stations, market towns, headquarters of talukas and Poona city. Nearly 80 % of these roads i.e., a length of 1,851 miles is un-metaled and during the monsoon is rendered unserviceable. During the fair weather, light motor traffic is possible on this road.[125]

Municipal Roads

The thirteen municipalities in the district have 167 miles of roads under their jurisdiction, which comes to 6.2 % of the total mileage of roads in the district. A little more than 50 % of these roads are good metaled ones. One hundred and five miles out of the 167 miles are located within the limits of the Poona Municipal Corporation and each of the other municipalities has only five miles of municipal roads.[126]

Emergence of Local self-government under British in Poona city gave a little vent to the discontentment of the city population and simultaneously it worked for the development of public infrastructure like internal roads and their maintenance, sanitation, and improving upon the scope and quality of roads within city limit. Connectivity of Poona to that of with other economic and political centres in India through railways and roads enabled the city to become the part of mainstream political movement and contributes in the freedom struggle. This connectivity not only helped the commercial activities practiced in the city but this also became a crucial aspect during the political movement like swadeshi. The four principles of swadeshi swaraj, boycott and national education, dominated the national movement as Poona's dual nature of being political as well as important economic centre provided

[125] *Ibid, p. 385.*
[126] *Ibid, p. 385.*

favourable circumstances to political movement, and in this aspect transport system served as significant factor.

Buses plying for Hire

The published official statistics regarding motor vehicles in Bombay presidency to be found in the annual reports of the Police department, the city of Bombay and the annual police reports of the Bombay Presidency. The entire work of registering and re-registering motor vehicles is entrusted to the Bombay City Police and hence we find earlier references and information in this series of reports than in the Presidency series. No mention was made in the Presidency reports of public motor traffic till the year 1928. Since then, a paragraph finds place therein annually.[127]

Number of Buses plying for Hire in year 1932-33 in Poona was 473, out of this number 253 were in operation in Poona City. Following table shows number of motor vehicles licensed to ply for hire inspected in Poona[128]:

Table No. 2.9 Buses plying for Hire

Sr. No.	Year	No. of Motor Vehicles licensed to ply for Hire
1	1923	249
2	1924	292
3	1925	312
4	1926	348
5	1927	422
6	1928	588
7	1929	688

[127] *A Survey of Motor-Bus Transportation in Six Districts of the Bombay Presidency, GIPE, Poona, 1935, p. 18.*
[128] *Ibid, p. 24 and 35.*

8	1930	735
9	1931	716
10	1932	624
11	1933	632

Tolls

Tolls under the name of Rahadari were levied on most roads under the rule of the Mussulmans and under the Marathas were, like most other dues, taken with great license and tyranny. They were more frequently of the nature of transit duties than tolls proper. General principal of tolls under colonial rule were the levy of tolls on roads and bridges requires the most effectual precautions to prevent extortionate or oppressive conduct on the part of the toll-collectors, and the most careful selection of the points at which the tolls are to be levied, so as to give ready access for redress against petty exactions to some near European authority. Tolls are to be levied on roads on which Government is incurring expenditure, and which they have been made fit for wheeled vehicles, not having been so before.[129]

Table No. 2.10 Number of Provincial and District Local Board Tolls in Poona, 1935[130]

Description	**Numbers**
Tolls Provincial	19
Tolls D. L. B.	05
Tolls Total	24
Mileage of Roads	713
Average Miles of Road per toll bar	29

[129] *Nairne Alexander, A handbook for Revenue Officers in the Presidency of Bombay, 3rd ed., Bombay, 1884, p. 400.*
[130] *A Survey of Motor-Bus Transportation in Six Districts of the Bombay Presidency, GIPE, Poona, 1935, p. 89.*

The mobility provided by the transport system created favourable circumstances for bringing people from different corners of the country together for the single cause that is freedom struggle. Transportation served as vehicle for this unity created in Indian masses against British colonial authority.

Local self-government in Poona city known as Poona Municipality had major role to perform in the transportation practiced in or via Poona city, public work department of municipality played important role in constructing and maintaining the roads within the Poona city limit. Transportation system progressed during concern time period was significant from the point of view for bringing Indian masses together and getting aware about the conditions prevailing in the different corners of the country. Hence in political movement transportation was one of the crucial factors.

The transport system played paradoxical role in India, as it was built to facilitate the colonial interest of British like military control, profitable commerce. These two were primary objectives of the Britishers but transport system catered these goals along with creating mobility for Indians. So, when someone travel, travels with their goods and ideas, so creating mobility for People, Goods and most importantly Ideas, if any one manages to transport any one of the above mention three factor, I think other two generally follow sooner or later.

If a person is travelling from one place to another, He/she also travel with their culture, ideas, and belongings, or if certain goods are introduced to a particular group of people, those people will develop eagerness to know more about the people and idea that created those goods, or if ideas are introduced to a particular group of people then they will surely investigate the material background of those people who came up with such ideas.

In this second chapter, nature of evolutionary and revolutionary changes that occurred in transport system in Poona are taken into consideration like road building methods, railways, and priorities in

construction of tracks and roads are highlighted so we can understand role of transport system in concerned time period.

3. Trade and Industrial Aspects of Urbanization

"*So, our condition is a very anomalous one – like that of a child to which a fond parent gives a sweet, but to which, in its exhausted condition, the very sweet acts like poison, and, as a foreign substance, by irritating the weak stomach makes it throw out more, and causes greater exhaustion.*"[131]

- *Dadabhai Naoroji*

Transportation is one of the major factors in influencing economy in constructive way. It widens the scope of Poona based trading activity, and played pivotal role in making Poona city, center for districts commercial as well as Industrial hub. With the development of all-weather roads and introduction of railways and its expansion, facilitate the improved movement of goods from one place to another, as British were more concern about the connectivity of Poona with that of Bombay, this aspect allowed Poona to have influx with foreign goods at same time export from Poona to Bombay market.

In evidence before the select Committee of the House of Commons, Major General Briggs illustrated the condition of roads in India by referring to circumstances arising out of the absence of a monsoon road between Khandesh and Poona, in 1823. He stated, "at that time grain in Khandesh had fallen from 6s. to 8s. a quarter. At Aurangabad it was 34s. a quarter, and at Poona as high as from 64s. to 70s. a quarter; but, in consequences of the monsoon, and the want of roads, the grain from Khandesh did not reach Poona. There was superabundance in khandesh, where grain was ruinously low, and great remissions was obliged to be made in consequences; while at Poona,

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[131] *Naoroji Dadabhai, Poverty and Un-British Rule in India, Swan Sonnenschein & Co., London, 1901, p. 54.*

where they had a bad season, grain was very dear. The distance from the Taptee (Tapi) river to Poona is about 300 miles by road, about 40 miles of which, from Poona was at that time practicable, but the grain brought from that distance was very soon exhausted." The difference in price between grain on the Tapi river and at Poona was about Rs. 29 a quarter, and yet the superabundance of the one district could not be sent to relieve the distress of the other.[132] This situation began changing after the introduction of railways and metaled road in second half of 19th century.

The European Chambers of Commerce at Bombay, Madras and Calcutta and their contemporaries in Liverpool, Manchester and Glasgow, have always looked upon India as a field for the supply of their raw material and as a market for their manufactured goods. They have been pressing for a rapid extension of railway in India but have taken no risk upon themselves.[133]

In second half of 19th century as the development of these modern means of transportation were rapidly expanding in their scope help towns present in district to get access of market at Poona city and the towns lying on west side of district were allowed connectivity with Bombay by Great Indian Peninsular Company's Bombay-Poona railway line. These developments regarding roads and railways were immediately sense by trade in perishable goods.

3.1 Trade

The vast and rapid improvement in transportation that has taken place during 1930s and 1940s has effected marked changes in the organization and extent of trade in the Poona. The popularity of machine-made goods, Indian and foreign, and the growing importance of commercial crops have also influenced this transformation.[134]

Poona city as the headquarters of the district and the railway junction of the Central and Southern Railways is naturally the main

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[132] Cassels Walter, Cotton an Account of its Culture in the Bombay Presidency, Smith, Elder and Co. London, 1861, pp. 297-298.
[133] Tiwari Chandrika Prasad, The Indian Railways, Self-Published, Ajmer, 1921, p. 370.
[134] Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 343.

center of trade in the district. In fact, it is an entrepot of the district. Many of the taluka headquarters of the district are not connected by rail with Bombay, the main center of trade in the State, but several of them have easy access by means of good roads either to the Poona railway station or to other railway stations on the main rail lines carrying traffic to Bombay.[135]

Sirur sub-division by Poona –Ahmednagar road, indapur Sub-division and Bhimthadi sub-division by Poon-Sholapur road, Purandhar sub-division by the old Satara road or new Satara road to Poona, Haveli sub-division by the Poona-Sholapur road, by the Poona-Ahmednagar road, by the new Satara road to Poona, by the Poona-Panvel road and by the Paud road to Poona, Khed and Junnar sub-division by the Poona-Nasik road to Poona.[136] This course of trade indicates that goods from the subdivisions of Poona district by using roadways were brought to Poona city and thence by railways to Bombay and vice-versa.

The principal means of transport in the district are the railways, the motor-lorry, the bullock cart, and human labour. The two principal railway administrations that serve this district are the Great Indian Peninsula Railway and the Madras and Southern Maratha Railway. The G.I.P. Railway (broad gauge) traverses the district from west to east; and the M.S.M. Railway (Meter gauge) starting from Poona traverses it, towards the south. There is also a short-gauge line, within the district, between Dhond and Baramati. One of the fundamental defects of the railway system as it has developed in the diversity of gauges. The most considerable disadvantage, that this means for the fruit of the district, is the necessity of transhipment of produce at Poona for produce from stations on the M.S.M. Railway (chiefly from the Purandhar taluka), when being carried to Bombay or other centres served by the G.I.P. Railway. Transhipment means both delay and damage to produce. If this is to be avoided, the produce must be carried by road to Hadapsar and booked on the G.I.P. Railway there. This means, on the other hand, the considerable addition to cost of carriage, on account of the longer road

[135] *Ibid, p. 343.*
[136] *Gazetteer of the Bombay Presidency, Vol. XVIII. Part II., Poona, 1885, pp. 163-164.*

haulage.[137] This was peculiar colonial nature of implementing projects, purely on utilitarian basis and result of complex models adopted for rapid expansion of railways in India

This shift in course of trade is largely due to the change in the political authority of the Indian sub-continent i.e., British, as Bombay was head quarter of administration as well as commercial activities hence in late 19th and early 20th century we come across this course of trade.

3.2 Imports and Exports

The chief agencies for spreading imports and gathering exports are trade centers, markets, fairs, village shops and peddler's pack. In different local trade centers, though they do business only on a small scale, the traders are independent. Regular trading is not generally carried on through agents, but large traders occasionally make use of the services of agents when they are unable themselves to make purchases either in the villages or in Poona and Bombay. Field produce passes through several hands before it leaves the Poona. It goes to market generally through the village shopkeepers, who pass it on to a dealer in some large town, who sends it direct to Bombay or to some export merchant in Poona. Like exports, imported articles pass through several hands, the wholesale merchant in Bombay, the importer in Poona, the dealer who buys from the importer and sells at his village shop or at some fair or market. In Poona itself imported articles sometimes pass through two hands, the wholesale merchant in Bombay and the importer.[138]

3.2.1 Imports of Goods

The chief articles brought for sale are grain of all sorts, cloth, vegetables and fruit, groceries, spices and other articles of daily use. Cattle markets are held at Bhamburde, a half-weekly cattle market was held on Wednesdays and Sundays. Horses, ponies, cows, buffaloes, sheep and goats are brought for sale.[139]

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[137] *Gadgil D. R., A survey of The Marketing of Fruit in Poona, GIPE, Poona, 1933, pp. 115-116.*
[138] *Gazetteer of the Bombay Presidency, Vol. XVIII. Part II., Poona, 1885, pp. 164-165.*
[139] *Ibid, p. 166.*

Decrease in cost both of making and of carrying and a larger margin of earning among the bulk of the lower classes; have of late years led to a great increase in the amounts of imports.[140]

The chief imports are grain including rice, bajri, jvari, wheat, pulses including gram, tur, hulga, math, udid and mug, oilseeds including earthnuts and khurasni, cotton seeds, moha Bassia latifolia flowers, salt, fish, metals, raw and refine sugar, tobacco, timber, hardware, indigo, twist, piece-goods and silk, matches, kerosene oil, haberdashery, porcelain and European liquor. Salt, which was formerly brought by pack-bullocks, now comes mostly by rail, and a little by the Nana and Malsej passes from Thana. Dry fish are brought from Bombay and Thana by rail and by the Nana pass by Musalmans Bhois and butchers.[141]

Imported groceries, chiefly dates cocoanuts and spices, are largely used by all classes. They are brought by rail as well as on pack-bullocks by the Nana and Malsej passes, from Bombay, and by rail from Sholapur. Refined sugar comes from Bombay and raw sugar, of which since the opening of the Mutha Canals, a large quantity is produced in Haveli, is brought into Poona from Phaltan, Satara, Kolhapur, and the Bombay Karnatak. In Poona city there is a large trade in raw sugar. During 1875-76 nearly 3750 tons valued at £ 45,236 (Rs. 4,52,360) were imported.[142]

Rice, which forms an important item of diet, is usually brought from Thana. Bajri is imported from Ahmednagar and Sholapur, and jowar, hulga, math, udid, mug, tur and gram from Sholapur. Wheat especially the bakshi variety comes from Hyderabad State, Sholapur, Khandesh and Gujarat. Oilseeds are brought from Sholapur and Satara. Salt and dry fish are brought from Thana and Bombay, and fresh fish from Bombay.[143] Tea and coffee, which are extensively used by all classes of people in Poona, are brought from Bombay.

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[140] *Ibid, p. 167.*
[141] *Ibid, pp. 167-168.*
[142] *Ibid, p. 168.*
[143] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 344.*

Metals

Under imported metals come gold, silver, copper, brass, iron, lead, zinc and tin. During the American war large quantities of gold and silver found their way into the Poona. Most of gold and silver were made into ornaments; the rest was hoarded. Copper and brass were formerly imported in blocks and worked first into sheets and then into vessels. In 1880's years ready-made sheets have been largely imported from Bombay and considerably lowered the price of brassware. Copper and brass ready-made cooking and drinking cups, of which there is growing manufacture in the city of Poona. The imports of iron have greatly increased and it is made in considerable quantities into water pails and butter and oil cans. Iron is also much used for cart tires and axels.

Under imported metals comes zinc, copper, gold, silver, lead, brass, iron and tin. All these metals are generally imported from Bombay by rail or motor trucks. Gold and silver are extensively used for ornaments and vessels. Although the manufacture of copper and brass utensils is growing in Poona city, at present a substantial quantity of these vessels is brought to Poona city from Nasik. Iron and steel, which are used for a variety of purposes, come from Bombay.[144]

Import of metals is crucial for the development of any industry and above example shows that immediately after the introduction of railways and bringing metal sheets directly may have damaged the employment of people who were involved in converting block metals into sheets. But in long run fundamental changes (in Transport system) get assimilated with the economic setup of Poona.

Cotton

Compare to the rest of Bombay Presidency, little cotton grown in the Poona Collectorate, and the small quantity produced was almost entirely used for home consumption. Government have frequently endeavoured to stimulate the cultivation of this staple in the district, but without success. This part of the deccan has generally been considered

[144] *Ibid, p. 344.*

unsuitable for foreign cotton, and there does not seem to be much prospect of any great extension of the cultivation of the indigenous. Following chart indicate the status of cotton cultivation in Poona Collectorate[145]:

Table No. 3.1 Cotton cultivation in Poona Collectorate 1841 to 1861

Years	**Total land under cultivation**	**Land Quantity cultivated with cotton**	
		Indigenous	Exotic
1841-42	9,82,600 A., 15 G.	2,684 A., 22 G.	-
1845-46	1,102,088 A., 30 G.	190 A., 11 G.	-
1850-51	1,215,015 A., 1 G.	4,682 A., 18 G.	-
1855-56	1,447,006 A., 8 G.	602 A., 13 G.	-
1860-61	1,664, 801 A., 35 G.	8,730 A., 00 G.	-

Indigo and silk are imported from Bombay by rail. English and Bombay cotton twist is brought by Bohoras and Gujarat Vanis and distributed over the district to handloom weavers. In 1880's, the outturn of the Bombay factories has to a great extent taken the place of English yarn. Piece-goods are of two chief kinds hand-made and steam-made. In 1870's and 80's except during the 1876-77 famine, the imports of steam-made piece-goods has rapidly increased, the cheapness both of Manchester and of Bombay goods stimulating the trade. Silks, like piece-goods, are of two kinds, machine and handmade. There is little local demand for steam-made European silks, but the produce of the Bombay silk mills is gradually taking the place of hand-made silks. No class of

[145] *Cassels Walter, Cotton an Account of its Culture in the Bombay Presidency, Smith, Elder and Co. London, 1861, p. 87.*

Merchants deals exclusively in silks, but almost all rich merchants keep silk fabrics in stock.[146]

There has been in recent times i.e., 1930s, an increase in the volume of imports into Poona. On account of restrictions on the movement of some essential goods and also procurement and rationing by the State as the result of Second World War and post-war conditions in the country, the normal channels of trade have to some extent been blocked temporarily.[147]

The articles of import are grain, including rice, bajri, jowar and wheat; pulses, including gram, tur, hulga, math, udid and mug; oilseeds, including groundnuts, khurasani and cotton seeds; moha flowers; salt; fish; raw and refined sugar; tea and coffee; tobacco; timber; hardware; yarn, cotton, silk, art silk; cotton piece goods; fancy and silk cloth; carpets; matches; kerosene oil; haberdashery; porcelain; various toilets goods; and building materials.[148]

Handloom fabrics and cloth, which consist mainly of dhotars and sadis, although they are manufactured in considerable quantities in district, are also imported from Burhanpur, Yeola, Ahmednagar, Ahmedabad and Nagpur. Mill made cloth is chiefly imported from Bombay, Ahmedabad and Sholapur. Silk which is used in waist cloth, turbans, sadis and other women's garments, is imported from Bombay, Ahmedabad, Surat, Ahmednagar and Burhanpur. Satranjis i.e., carpets, are brought from Agra, Khandesh, Ahmednagar and South India.

3.2.2 Exports of Goods

Of exports the chief were, of vegetable products, grain, cotton, raw sugar, vegetables, betel leaves, myrobalans and, roots and barks for dyeing; of animal products, honey, hides and horns; and of manufactured articles, clarified butter, brassware, shoes, silk cloth, home-spun cotton

[146] *Gazetteer of the Bombay Presidency, Vol. XVIII. Part II., Poona, 1885, pp. 168-169.*
[147] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 343.*
[148] *Ibid, p. 344.*

cloth, ivory and wooden toys and perfumes. Under grain besides bajri and jvari come wheat and gram.[149]

Since the opening of the railway the export of perishable produce has greatly increased. Among the chief branches of this trade are the export of betel leaves, vegetables, and fresh fruit from the Haveli and Purandhar sub-divisions, and of potatoes from Junnar and Khed. Plantains are sent from Valhe in Purandhar by the old Satara Road to Poona. Nearly three-fourth of the cotton grown is sent by rail from the eastern sub-divisions to Bombay. Raw sugar, which is imported in large quantities, is also exported to Ahmadabad. In Haveli metal-ware is made in large quantities in the city of Poona by coppersmiths and others who send the articles by rail to Bombay and Sholapur, and by road to Satara, Kolhapur and other places.[150] A large quantity of imported raw sugar is re-exported to Gujarat and Saurashtra.

Metal ware is made in large quantities in the city of Poona and these are sent by rail to Bombay and Sholapur, and by road to Satara, Kolhapur and other places.[151]

3.2.3 Nature of Imports and Exports

British power unified a region that had been politically fragmented before. British technology integrated India by means of the railways and the telegraph. Markets opened up by British Empire combined with the reach of British political power and commercial enterprise to shape a new world of opportunity for Indian capitalists and migrant workers.[152]

Since the opening of Great Indian Peninsula Company's Bombay-Poona Railway line, there was increase in the movement of goods and people, both inward and outward. The development in the railways by the 1880 not only affected the volume of trade but quality as well. Opening of the railways lines was the major turning point into the

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[149] *Gazetteer of the Bombay Presidency, Vol. XVIII. Part II., Poona, 1885, p. 169.*
[150] *Ibid, pp. 169-170.*
[151] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 345.*
[152] *Roy Tirthankar, The Economic History of India 1857-1947, Oxford University Press, New Delhi, 2006, p. 89.*

economy of the Indian sub-continent but the potential of the railways was best utilized after the development of the other narrow-gauge line and road network connecting major district towns in Bombay Presidency.

The largest volume of wholesale business continues to be located in the same neighborhood namely Bhavani Peth, Nana Peth and areas near about. Due to the imposition of controls on food grains during the war and post-war periods and the introduction of rationing in urban areas, the pattern of wholesale trade in grain and grocery has necessarily changed to a certain extent.[153]

Trade in vegetables and fruits yields in importance only to that in grain and grocery from the point of value. Only one-fourth of the vegetables and fruits produced in the district are taken direct to outside centers and the rest passes through Poona city. The transport of these goods is done by carting agents.[154]

This transport system facilitated mobilization of resources though through colonial government but it initiated the process that will get people from Poona in contact with markets, goods, and people.

3.2.4 Re-export:

The gross imports represent all imports that came into the octroy area, including those re-exported. Since the beginning of the Second World War, a large variety of commodities were conveyed to out stations through the Poona city. The municipality recovered import duty on such articles at its import nakas, but refunded the duty, subject to a deduction of 10 percent, if the commodities were removed out of the municipal limits within seven days.

During the Second World War period, owing to the difficulty in obtaining railway bookings, goods were sent to other centers via Poona by road. Further, the controlled distribution of cloth during the war and the immediate post-war period necessitated the imports of cloth into

[153] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 360.*
[154] *Ibid, p. 361.*

Poona in the first instance with a view to their dispatch later to the Import and export trades in real terms increased enormously as a result of the reduction in transportation costs. Because this cost became a smaller part of the price, the supply of goods now responded to narrower difference between local and world prices than before.[155]

3.3 Industries

Section 2, sub-section 3 of Factories Act of 1911 described the Factory, means any premises wherein, or within the precincts of which, system, water or other mechanical power or electrical power is used in aid of any process for, or incidental to, making, altering, repairing, ornamenting, finishing or otherwise adapting for use, for transport or for sale any article or part of an article.[156]

War conditions then (1917-18) prevailed and all existing departments of industries were fully occupied with work under the new Munition Board Organization. In Bombay alone, the new Director was not directly associated with the Munitions Board organization, which was then in full swing and, in Bombay especially, fully engaged in important problems of Transport and shipping, calling for special knowledge and qualification.[157] Military and political conditions of the region use to make huge impact on the nature of Industrial progress.

As per the annual Factory report for the Presidency of Bombay, 1923, 5 new factories were added in Poona out of which one of motor works, 2 engineering works 1 printing press and 1 sugar factory[158]

15 working factories, 1 arms and ammunition, 1 Arsenals, 1 engineering Workshops, 2 Sappers and Miners workshop, 1 cotton factory, 1 metal works, 2 Engineering Workshops, 1 Motor works and coach building works, 1 Railway Workshops, 1 sugar factory, 1 paper

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[155] *Roy Tirthankar, The Economic History of India 1857-1947, p. 301.*
[156] *Kydd J. C., A History of Factory Legislation in India, University of Calcutta, Calcutta, 1920, p. 161.*
[157] *Annual report of the Department of Industries Bombay Presidency, 1917-18, Bombay, 1919, p. 1.*
[158] *Annual Factory report for the Presidency of Bombay, 1923, Bombay, 1924, p. 3.*

mills, 4 printing press, 1 glass works, 1 Electrical generating station, 1 Umbrella factory[159]

In 1939-40, Village Industries Experimental Workshop, Poona was started. A scheme for starting an experimental workshop in Poona for carrying out experimental work in connection with improved appliances and processes for existing village industries and any possible new ones was submitted to Government during the year and was sanctioned at the end of the year under report. The scope of the workshop is proposed to be restricted to appliances operated by hand or animal power used in village industries which can be adopted by the individual or family. The workshop building has been put up in the grounds of the Agriculture College, Poona and is adjacent to the workshop of the Agricultural Engineer to Government.[160]

The efficiency of transport system has always remained one of the influential factors in the process of industrialization or developing a particular center with fair quantity of commercial activity. The nature of means and modes of transportation practiced in particular region depicts its level of economic progress. Poona experienced development in cotton and metal-based processing establishment, since the time period of Peshwa but the development of better transportation during British period encouraged further growth of industries in Poona City.

Table No. 3.2 Industrial Establishments in Poona City during 1940s[161]

Industrial Establishment	**P.C.M.**	**S.M.**	**Total**
Metal and Engineering	479	4	483

[159] *Ibid, pp. 22-36.*
[160] *Annual Report of the Department of Industries Bombay Presidency, 1939-40, Bombay, 1940, p. 26.*
[161] *Gadgil D. R., Poona: A Socio-Economic Survey, Part-1, Gokhale Institute, Poona, 1945, pp. 86-89.*

Mechanical and other repair	136	4	140
Building and Wood Work	156	-	156
Food, Drink and Tobacco	334	24	358
Textiles, Fiber and Leather	298	1	299
Paper, Printing and Stationery	83	1	84
Miscellaneous	45	-	45
Grand Total	**1531**	**34**	**1565**

Table No. 3.3 Retail Shops in Poona City during 1940s[162]

Retail Shops	**P.C.M.**	**S.M.**	**Total**
Building and Furniture	778	17	795
Food, Drink and Tobacco	2087	173	2259
Textiles, Fiber and Leather	771	20	791
Paper and Stationary	183	-	183
Toilet, Sports and Toys	480	21	501

[162] *Ibid, pp. 90-93.*

Vehicle and Accessories	264	21	285
Miscellaneous	241	1	245
Grand Total	**4804**	**252**	**5056**

3.3.1 Large Scale Industry

Section 2, clause j of Factories Act of 1934 described the Factory means any premises including the precincts thereof whereon twenty or more workers are working, or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on with the aid of power, or is ordinarily so carried on.[163] Following was the large-scale industries in operation during concerned time period in Poona as per the definition of factories Act of 1934[164]:

1. Biscuit-manufacturing Industry
2. Brass, Copper, and Aluminum Industry
3. Drug and Chemical Industry
4. General and Electrical Engineering
5. Film Industry
6. Paper and Paper-board Industry
7. Printing and Book-binding Industry
8. Rice-Milling Industry
9. Rubber Goods Industry
10. Soap Industry
11. Textile Industry

[163] *The Factories Act of 1934, Government Central Press, Bombay, 1939, p. 2.*
[164] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, pp. 269-90.*

12. Vegetable Oil Industry

3.3.2 Small Scale Industry

Section 5, sub-section 1 of Factories Act of 1934 explain provincial government power to declare places to be factories as follows, Notwithstanding anything contained in clause (j) of section 2, the Provincial Government may by notification in the Official Gazette, declare any place wherein, a manufacturing process is carried on whether with or without the aid of power and wherein on any one day of the twelve months preceding the notification, ten or more workers were employed, to be a factory for all or any of the purposes of this act.[165] Following was the small-scale industries in operation during concerned time period in Poona as per the definition of factories Act of 1934[166]:

1. Agarabatti-making
2. Bakeries
3. Bamboo-working Industry
4. Bidi-making Industry
5. Building Industry
6. Carpentry
7. Dying and Printing
8. Flour Mills
9. Goldsmiths
10. Gold and silver thread makers
11. Hosiery
12. Ivory Combs
13. Leather Works

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[165] *The Factories Act of 1934, Government Central Press, Bombay, 1939, p. 4.*
[166] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, pp. 294-307.*

14. Paper-making by hand
15. Potters
16. Smithies
17. Snuff-makers
18. Weaving

Above list of Large- & Small-Scale industries give rough sketch of nature of import and export commodities were in circulation and we can infer the role of transport system in sustaining these industries.

3.4 Milk Production

The production and supply of milk, a commodity which is always in great demand in a growing city like Poona, offers employment to a considerable number of persons both in the city itself and in the surrounding villages. According to a Government survey carried out in 1948, there were in the city 5,509 milch cattle, out of which 1,215 were dry.

Table No. 3.4 The number of cows and buffaloes[167]

Area	Buffaloes		Cows	
	Wet	Dry	Wet	Dry
City	2,647	661	865	216
Cantonment	285	156	84	45
Suburban area	247	89	166	48
Total	3,179	906	1115	309

Owing to the long distances fodder must be transported by rail and road, there is great waste and enhancement of price, while the facilities for transport being poor, delivery cannot be affected when most

[167] *Ibid, p. 407.*

urgently needed.[168] Fodder with highly perishable values affected mostly by the nature of transport system available to the cattle owners.

As production within the city is not keeping pace with the growing demand, increasing quantities are imported from surrounding villages situated on the Poona-Bombay, Poona-Satara, Poona-Paud and Poona-Nagar Roads. As many as 161 villages were supplying milk to the city, while persons engaged in bringing it to the market places were over 1,600. The maximum distance from which milk was brought was nearly 40 miles and the modes of conveyance included head loads and all kinds of vehicles from the bullock cart to the Railway.

Table No. 3.5 The quantities of Milk brought by vehicles[169]

Vehicle	Quantity (in lb.)	Percentage of total quantity
Bicycle	24,422	45.4
Railway	10,405	19.31
Motor Truck	9,555	17.8
Tonga	7,258	13.5
Head load	1,732	3.2
Bullock Cart	444	0.8
Total	53,816	100.0

The daily supply of milk and milk products was as given below:

Produced within city:

Fluid milk - 32,867 lb.

[168] *Report of the Cattle Breeding Committee for Bombay Presidency, 1921, p. 3*
[169] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 409.*

Imported milk:

Fluid milk - 53,816 lb.

Milk products – 24,745lb.

Of the import of milk and milk products only 9.59 percent came from places within five miles of the city while 44.13 percent came from places within 6 to 10 miles, and the remaining from places beyond 10 miles.[170]

Above mentioned statistics clearly indicates the significance of improved transportation as it expanded the scope of business. Transport system specifically speaking of Bicycle, Railways, and Motor Truck constituted almost 82% of total milk brought in Poona during 1940s and 1950s. this shows the nature of effects on perishable commodities due to the Transport system.

3.5 Fruits

The Principal Poona City market is the Reay Market which is in the main, a wholesale and retail market for fruit and vegetables. The Reay market was built between the years 1884 to 1886. Before that date, the main fruit and vegetable market was held outside the Shaniwar Wada; and there were retail markets in other parts of the city also. Since the building of Reay Market, however, these retail markets have gone out of existence. The only other regular market, within the limits of Poona now (1933), is the cantonment market, which is a permanent covered market, confined to retail dealings.[171]

The largest available open space is on the south. This also is largely occupied by raised platforms for pitches, for retailers and wholesalers. But the difficulty usually is, that, as this is the way from which producers mostly approached the market, the roads on this side are always congested with bullock carts or motor lorries that are unloading goods or are parking. The south-west corner, there are more than three motor service agencies; and one or more lorries are always coming in

[170] *Ibid, p. 409.*
[171] *Gadgil D. R., A survey of The Marketing of Fruit in Poona, GIPE, Poona, 1933, p. 88.*

and going out.[172] The English Agricultural Ministry's report on Market and Fairs points out, that the efficiency of a market for perishable goods depends, very largely, on the speed with which produce can be moved about. And lays down certain standards, the Poona market road-width etc. Measured by these standards, the Poona Market roads are utterly inadequate; and some special regulation of the vehicular traffic moving about the market area, is necessary.[173]

3.5.1 Imports of Fruits into Poona City

The figures of imports that GIPE have compiled from the octroi registers include all fruit that comes to the Poona city market, as well as the fruit that is sent directly from the Poona railway station to Bombay and other centers. GIPE have compiled detailed figures of the statistics of fruit imports into Poona for the years 1930-31 and 1931-32 from the records of the octroi nakas of the Poona City Municipality. According to these figures fruit amounting to 167 thousand maunds and 185 thousand maunds were imported into Poona during the years 1930-31 and 1931-32 respectively[174].

3.5.2 Export of Fruits

Hundekaries i.e. is a forwarding agent who does the shipping of fruit parcels at railway stations for the consignors.[175] The export statistics are difficult to formulate on the quantitative grounds since the data available for the imports itself is dynamic and the presence of re-export feature and its nature of operation, it is further get complicated when the fruits were directly sent to Bombay or other markets by passing Poona because of their location on the western part of Poona and on the other hand fruits that are brought to Poona from east and south-east portion of district, though they are sent to Bombay because of location and transportation facilities they are being calculated in the imports of Poona here the re-export aspect work as follows.

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[172] *Ibid, p. 91.*
[173] *Ibid, p. 95.*
[174] *Ibid, p. 26.*
[175] *Gadgil D. R., A survey of The Marketing of Fruit in Poona, GIPE, Poona, 1933, p. 27.*

Re-export aspect

The rules for the grant of refund of the octroi by the Municipality do not allow for a refund of less than Re. 1. And as in the case of fruit the duty amounts to Re. 1 only for a whole cart-load or 16 maunds weight, the large bulk of the imports, which are in much smaller lots are not entitled to a refund. Even in the case of larger lots of imports it would seem that a refund is not claimed either because of ignorance in regard to the provisions or because of the trouble involved in obtaining the refund. This is obvious from the refund statistics. In 1930-31 no refund was claimed in respect of fruit and in 1931-32 it was claimed in respect of only 54 maunds of re-exported fruit.[176]

Another important aspect was the number of fruits carried by headloads, this quantity cannot be measured since it is not recorded on any octroi point and station. Fruits brought by Railways, bullock carts, motor vehicles, headloads from different points in Poona and their distribution within and outside of city again through above mention means and considering the amount of quantity kept for consumption within city, we can arrive at tentative figure only. After looking at the above-mentioned figures we can safely derive that even after the uncertainty in the calculation of quantity, consistently growing numbers of average imports, exports and within city consumption were on ascending. The difference may not be calculated for seasons or years but available numbers regarding quantity of fruits imports and exports clearly indicate rise from decadal analysis.

Another item that figures among the cost of transport, is the octroi duty. This is not levied in Bombay, but is levied in most of the other cities like Poona, Sholapur, etc. the rate at which it is levied in Poona is one anna per maund of fruit. For purposes of ready calculation, the capacity of a cart drawn by two bullocks is taken to be 16 maunds; that of a small cart drawn by one bullock, 8 maunds; and that of a pony, 3 maunds; and the octroi charge is levied accordingly. A headload of

[176] *Ibid, p. 32.*

fruit is considered to be equivalent to one maund, and as all headloads liable to a duty of less than As. 4 are exempted from the duty, headloads of fruit are never charged any octroi.[177]

3.6 Carpets

In the jails, carpets are made for sale and blankets and clothing for the prisoners.[178] Woollen pile carpets are made in the prisons at Yerowda, Thane, Ahmedabad, Karachi, Hyderabad and Shikarapur; also, in and around Ahmedabad, owned by the Ahmedabad Carpet Manufacturing Company, and on a small scale at Bubak in the Karachi district. A few are also turned out at the Sir. J. J. School of Art in Bombay. The method in all these places is much the same. The finest pile carpets in this presidency (Bombay) are undoubtedly those made at the Bombay School of Art, where, regard being had solely to instruction and not to profit, the materials used are the best obtainable, the designs are generally the most elaborate and the quality of the workmanship unimpaired by any necessity for haste. Naturally carpets made under such conditions are precluded from competing in the market with those made on commercial principles, and not only so, but the output is too insignificant to create a demand.[179]

Next in point of quality come the carpets made in the jails, Yerowda ranking first in this respect. Some of the best designs in the Yerowda Prison have been copied from sample of the old Bijapur carpets procured from the Asar Mahal. These carpets, which are probably 250 years old, are believed to have been ordered from Kashmir and Agra and to have been copied from Persian or Turkish models. Another feature of interest in the Yerowda carpets is the manufacture of carpets of undyed wool, the natural colors being so perfectly blended as to produce a design of unexpected beauty.

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[177] *Ibid, p. 132.*
[178] *Brendon B. A., A Monograph on the Woolen Fabrics of the Bombay Presidency, 1899, p. 1.*
[179] *Ibid, pp. 7-9.*

3.7 Economic course of Urbanization

One of the most crucial parts of the district's economy lies in the urban area. At several stages in the past, the city has obtained a stimulus both to its population and to its business by external factors, such as the establishment of a cantonment, a public department, or an institution. The two World Wars accentuated this process, which has by no means reached its end.[180]

In the early years of colonial rule there was a demand for foreign goods. Later on, husbandmen began to show more intelligence in meeting the demand for particular produce. In early 1880's, the great increase in the demand for oilseeds and raw sugar has led to a large increase in their production and export. The oilseeds went chiefly to Bombay and the raw sugar to Bombay and Gujarat.[181]

There were many hand-looms for the weaving of fabrics of silk and cotton; and articles of brass, copper, iron and clay were made in the city. Throughout Western India Poona workers had earned a reputation for the manufacture of cloth, silver and gold jewelry, combs, dice, and other small articles of ivory, fans, baskets, and trays of khas-khas grass ornamented with peacocks' feathers and beetles' wings and of small, carefully dressed clay figures representing the natives of India. Several important factories came to be established in the city and its immediate vicinity. Chief of these were the gun-carriage factory and arsenal in cantonments, and the small arms and ammunition factories at Kirkee. In addition, there were two cotton-mills, some iron and brass foundries, and a paper-mill by the 1930's.[182]

Several changes in the organization of wholesale trade in Poona took place during the fifteen years after the survey conducted by the Gokhale Institute of politics and Economic. The largest volume of wholesale business continued to be located in the same neighborhood as

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[180] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 435.*
[181] *Gazetteer of the Bombay Presidency, Vol. XVIII. Part II., Poona, 1885, p. 163.*
[182] *Imperial Gazetteer of India, Provincial Series, Bombay Presidency, Vol. 1, 1909, p. 526.*

during the Peshwai namely Bhavani Peth, Nana Peth and areas near about. Due to the imposition of controls on food grains during the war and post-war periods and the introduction of rationing in urban areas, the pattern of wholesale trade in grain and grocery had necessarily changed to a certain extent.[183]

Trade in vegetables and fruits yielded in importance only to that in grain and grocery from the point of value. Only one-fourth of the vegetables and fruits produced in the district were taken direct to outside centers and the rest passes though Poona city. The transport of these goods was done by carting agents. The bulk of the exports were to Bombay, but fruits like santra (oranges), mausambi (sweet lime) and pomegranates find markets in the States of Madhya Pradesh and Uttar Pradesh.[184]

The Poona can claim no special advantages in respect of raw materials or cheap labor on which any large-scale industry can count. An industry, therefore, which produces articles in the manufacturing costs of which raw materials and manual labor occupy an important place, cannot hope to succeed in Poona. On the other hand, the large number of technical and scientific industries for which finance, trained labor and transport are of crucial importance will find Poona increasingly inviting.[185]

Progress in transport, within and without the district, has increase the commercial possibilities of Poona as even a bigger center of internal distribution than it has been in the past. Along all the lines of road and rail communications there is a strong tendency for commercial, residential and industrial units to crop up almost unobtrusively. These two tendencies, improvement in transport and development of housing along new outlets, brought about an extension of the municipal limits of Poona.[186]

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[183] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 360.*
[184] *Ibid, p. 361.*
[185] *Ibid, p. 435.*
[186] *Ibid, p. 436.*

Development in transport system occurred in last quarter of 19th century brought major shift in the availability of raw material in the Poona city at the same time ensure the circulation of produced and manufactured goods from Poona to other centers. Transportation was prominent driving force behind the economic change that took place in Poona city during the first half of the 20th century.

It enabled the expansion of existing industries like metal and food-based industries same time it introduced new industries like film making which resulted in creation of job opportunities in different sector. Emergence of large-scale industries gave impetus to the small scale and household karkhanas to sprung up in city to cater the increased demand of goods which are either produced and manufactured in Poona city or the commodities which are in their transition pass through Poona city. Altogether the enhanced and widened economic activity resulted in the establishment of industry and trading points in city and this consequently leads to creation of employment opportunity in city. During colonial period the importance of Poona city as transit point for the goods produced and manufactured in district remained intact, since the railway connectivity and it supplemented by road network made Poona central station for commercial activity for district.

Urban settlements are more concerned with accessibility of services and things are facilitate with relatively more mobility. Better and more commuters are available in urban areas. The transport infrastructure in urban area is considered as efficient one then its rural counterpart. Occupational variation is key to urbanization. Occupationally varied human settlement with infrastructural aids can sustain the urbanity of settlement.

4. Socio-Cultural Aspects of Urbanization

"Houses make a town, but citizens a city"[187]

– *Rousseau*

Transportation has played major role in the social transformation of the India. To understand the changes of the social conditions in Poona, one needs to take review of the pre-colonial social structure, which affected the backwardness of the common people.

Transportation is an inseparable part of any society. It depicts relation between the life style, the scope and location of activities and the commodities and services people have access to. Development in transportation has made impact on the living conditions of the city dwellers. Transportation also influences the social compositions and play constructive role in bringing distinct areas closer to each other. These aspects of modern transportation play significant role in changing Poona's social nature in positive way.

4.1 Pre-British Social Conditions

The Hindu social structure revolves round two fundamental institutions; the Caste and 'the Joint family. Everything connected with the Hindu people, outside their religion can be traced to these two institutions. These in fact are the differentiating characteristics of Hindu life.[188]

The pre-colonial social conditions were mainly driven by caste of the person and for the western writers; the Indian social conditions or nature of the Indian society was considered as closed in one's own social

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[187] *Rousseau's Social contract, G. D. H. Cole, Trans., J. M. Dent & Sons Ltd., London, 1913, p. 15.*

[188] *Panikkar K. M., Hinduism & Modern World, Kitabistan Publication, Allahabad, 1938, p. 19.*

group. India's own various social factors affected the conditions of the Indian people due to caste differences and it resulted in the watertight compartment in the Indian society.

Traditionally, the Indian society was divided into four Varna i.e., Brahman, Kshtriya, Vaishya, Shudra. But it is theoretical understanding of the Indian society, the traditional Varna got sub-divided into the various closed groups called caste. Caste is such a dominating factor, not only in the social life of individual but it also affected the political, cultural, and economic life of a person. Since the caste played major role in the day-to-day life of the individual and survived because of its rigidness, able to survive through centuries. Though earlier it was four-fold division based on Varna but by the 18th century it evolved into multi folded division based on caste, this system was more complicated and interwoven in nature that serve as cause for social stratification in rigid sense. The upper classes or higher castes demanded that the lower classes, the untouchables must serve the high caste people.

4.2 Social Structure in Poona City

Caste hierarchy defined gradation in Hindu society precisely and it might be said that at the beginning of the 19th century this gradation was comparatively fixed and generally accepted. The establishment of British rule affected it in a variety of ways. The prestige of Hindu concepts and the sanctions of Hindu social organization began to suffer progressive decline after the advent of the British.[189]

The traditional caste-ridden society manifested its negative features during the declining period of the Maratha rule. The inequality of the castes was the main feature of the social structure. All were not equal before the law. Even among the high-castes there were many sub-divisions. It was generally believed that the Hindu Society was a graded society. Some of the Vedic Pundits would declare that there were only two self-exclusive groups of Hindus, Brahmins, and Shudras. There were no Kshatriyas or Warriors by birth and the merchants were treated as

[189] *Gadgil D. R., Poona: A socio-economic survey, part-II, Gokhale Institute of Politics and Economics, Poona, 1952, p. 172.*

among the Shudra caste only. The Brahmans however had the privilege to follow any trade or profession. They were appointed to civil and military offices and many a Brahman was engaged in the gold and ornaments trade. Some of them were rich money- lenders who lent money to the Sardars and the Peshwas.

Certain principles of caste are:

1. Unchangeable inequality based on birth.
2. Gradation of professions and their inequality, and
3. Restrictions on marriage outside one's own caste group.

A person's caste is decided by his birth. From one caste to another there is no passage. If a man is born a shudra, he remains all his life a shudra; he must marry only a shudra and according to caste theory can only carry on the professions allotted to the shudra.[190]

4.3 British Influence on Indian Society

The British were instrumental in introducing Western culture, education, and scientific techniques. Western influence became effective in India mainly through the British who were the pioneers of a new technological and industrial civilization. They represented a new historic force which was later to charge the world and thus were the torchbearers of a revolutionary change.

India under the suzerainty of the British authority coming under its iron grip. In the social sphere British impact proved to be beneficial. The prohibition of Sati, abolition of child-marriage, introduction of widow remarriage, checking of infanticide, polygamy, untouchability etc., attempts were made to eradicated age-old social evils from the Indian society.

The three main channels, through which modern ideas have found their way to India, are British rule, English education, and

[190] *Panikkar K. M., Hinduism & Modern World, pp. 21-22.*

Christian missions,[191] during the first half of the 19th century British had established their supremacy over large part of Indian sub-continent and this resulted in political unification of the country. Successful British political advent in India was a clear indicator of weak and unorganized administrative structure of India in 18th century, which paved the way for the British supremacy.

As political hold was made firm enough after the 1858, the next obvious attention was given to make it more stable and permanent. In this attempt English education played crucial role, it made Indian to realize the backwardness of their prevailing education system, and to the extent some early Western educated Indians acknowledged the British superiority over Indian society. Education helps Indians to understand about their standing in the world's civilization and made them aware about the long road of progress which was yet to travel.

Christian missions have played a large part in introducing India to the humanistic side of Western civilization. But the underlying idea of these missions is entirely opposed to the idea underlying education. The Christian missionary believes, or is supposed to believe, that Indian society cannot progress unless Indians are converted to Christianity. The educational system of India, on the other hand, was founded on the belief that, if Indians are educated in modern ideas, they will become the natural leaders of reform and even missionaries to convert India to Christianity. That English education will lead people to Christianity has been falsified, even in the missionary colleges which were intended as an intensive expression of this belief. Some of the ablest leaders of Hindu revivalism, like the Swami Vivekananda, were educated in Christian colleges.[192]

These three above mention factors contribute largely for the transformation of Indian Society in 19th century and especially the modern education which created adaptability in the Indian society to match with the changed political and economic conditions in the country

[191] *Natarajan S., A Century of Social Reform in India, Asia Publishing House, Bombay, 1959, p. 5.*
[192] *Ibid, pp. 7-8.*

and prepared grounds for upcoming social reform movement. Means of transportation and new education policy worked as vehicle to brought British customs, manners, and etiquettes in Indian society.

British Influence on Transportation and Rapid industrialization brought modem system of transport and communication. During Lord Dalhousie's period, the first railway line was built and the train ran between Bombay and Thane in 1853. These modem systems of transport and communication, took India to a modem world. The impact of this modernization was largely felt on every walk of Indian life. This acted as a boomerang for the British authorities in India.

The historic decision taken by Lord Macaulay in 1835 was a turning point in India history which opened the flood-gates of European thought and literature for Indian intellectuals. This brought Indian mind into contact with Western science, literature, philosophy, history and so on. The 'Downward Filtration Theory' of Macaulay, 'Woods Dispatch' in 1854 and 'Hunter Commission' in 1882 expanded the intellectual horizons of Indians.

4.4 Population of Poona City

The census unit named the city of Poona has changed from time to time. It is necessary to give a brief sketch of these changes. Up to the Census of 1911, the census unit known as Poona City comprised the City Municipality, the Suburban Municipality, and the Poona Cantonment; it is interesting to note that Kirkee was not included in Poona City before 1911. In 1921, the census unit was changed. The Census Superintendent for 1921, following the then Collector of Poona District, referred to Poona City as Greater Poona and this was fixed as the Census unit in 1921. Greater Poona consist of the City and Suburban Municipalities, the Poona Poona Cantonment, the Kirkee Cantonment, the Government House Area, and a good deal of the land of eight or nine villages viz. Parvati, Ghorpadi, Vanavadi, Bopodi, Yeravda, Aundh, Bhamburda, and Yerandvane.[193]

[193] *Gadgil D. R., Poona: A Socio-Economic Survey, Part-1, GIPE, Poona, 1945, p. 19.*

4.4.1 Nature of Population before 1881

Regarding the population of Poona City before the census of 1881, the Gazetteer has the following. The earliest record of Poona population is for 1780 when it is roughly estimated to have numbered 1,50,000 souls. During the eight years i.e., 1796-1803, of unrest in the beginning of Bajirao II's reign, the population fell considerably, chiefly through the depredation of Daulatrao Shinde, his father-in-law Sarjerao Ghatge and Yeshwantrao Holkar and the great scarcity of 1803. At the beginning of British rule, the estimated population varied from 1,13,000 to 1,00,000. The first reliable record is for 1851 when it numbered 73,209. The opening of the railway in 1856 raised the number to 80,000 in 1864 and since then there has been a steady advance to 90,436 in 1872 and 99,622 in 1881. Of the 1872 total, 80,000 were Hindus, including 587 Jains, 9,013 Musalmans, 262 Christians and 361 others.[194] From 1881 onwards we start getting reliable data regarding the population of the city, since the Census were conducted and its finding were made public it became easy to analyze the changes in the number of people in city. As stated above the census unit was changing in nature till 1921 and nature of city was experiencing transition phase in economic activity, it reflected in the census report as well.

During the second half of the 19th century, Poona has been steadily growing. In 1851 its population was returned at 73,209; 1863 it was supposed to have risen to about 80,000. At the next three enumerations it was: 118, 886 in 1872, 129,751 in 1881, and 161,390 in 1891. In 1901 it was returned at 111,381, exclusive of 41, 939 in the cantonment and suburbs; total, 153,320. Hindus numbered 122,393; Muhammadans, 18,165; Christians, 8,474; Parsis, 1,900; and Jains, 1,473.[195]

[194] *Ibid, pp. 19-20.*
[195] *Imperial Gazetteer of India Provincial series, Bombay Presidency, Vol. 1, 1909, p. 522.*

4.4.2 Changes in Composition of Population in Poona City

Improved Transport facilities helped in changing population composition of Poona city, increase in the number is one of the clearly visible changes and following chart of will give an idea about the proportion for male and female population in Poona.

Table No. 4.1 Poona City Taluka Population for the Year 1921, 1931, 1941, 1951[196]

Gender	**1921**	**1931**	**1941**	**1951**
Male	122,737	141,291	193,703	323,940
Female	100,078	114,712	157,530	270,143

The chart above indicates total population for the Poona Taluka for respective years, since the scope of Poona city as census unit was not constant for concern period of research topic, hence at the beginning the Poona City Taluka population figure are given. In upcoming pages, population of Poona City with its area wise categorization is discussed.

From above mention chart it is evident that the rise in population of Poona taluka in last two decades i.e., 1930s and 1940s is a sign of its expansion and demand for infrastructural facility to accommodate increasing population in city. This also lead settlement in the adjoining areas of old city like Bhamburda now known as Shivajinagar, in this growth as well the rise occurred in last decade i.e., 1940s was immense one, this may have several reasons behind it, but the point is that there was influx of population from adjoining districts was taking place in Poona city.

Improved transportation in last quarter of 19th century could be statistically analyzed by the population increased in first half of 20th century, at the same time the composition of Poona's population was also changing.

[196] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 74.*

Table No. 4.2 Census Population for the year 1881, 1891, 1901

Unit	**1881**	**1891**	**1901**
Greater Poona	144,340	182,099	175,463
City Municipality	99,622	118,790	111,381
Suburban Municipality	-	7,506	9,694
Poona Cantonment	30,129	35,094	32,777
Kirkee	8,012	10,951	10,797
Suburbs	6,577	9,758	10,814

During 1881-91, in city municipality, the growth of 19,228 was constituted by 11,146 males and 8,082 females. The suburbs showed a normal proportion of both sexes in their growth. During the same period the growth in the Poona and Kirkee Cantonments amounted to 4,965 and 2,939 respectively. The growth in this area is predominantly among the male section of the population. The growth of 4,965 in Poona Cantonment comprised 4,707 males and 258 females. In Kirkee the growth of 2,939 was made up of 2,290 males and 649 females. As both these areas are mostly military in character. During this decade the Madras and Southern Mahratta Railway was constructed. It opened Southern Mahratta Country.

During next decade, 1891-1901, the population of the city decreased by nearly 6,000. There were severe famines towards the end of this decade. The decrease in the population was mostly due to the mortality from plague. Population decreased by about 7,000 within the city municipality area. The Poona and Kirkee Cantonment lost 2,317 and 154 respectively. The Poona Suburban Municipal area shows an increase of 2,188 and Suburbs also show a gain of 1,056. The increases in

population, in suburb section, suggest that people had shifted from city or cantonment area to escape from plague.[197]

Second half of the 19th century experience increase in the population of the Poona City except the last decade due to plague epidemic. Opening of Great Indian Peninsula Company's Poona-Bombay line and Southern Mahratta Railway company's Poona-Nira line, made Poona rapidly accessible to capital city of Bombay province and flourishing Port on western coast of India i.e., Bombay. Poona-Nira line helped in connecting Poona to hinterland of southern part of India. This resulted in the influx of people from different corners of the county.

Table No. 4.3 Census Population for the year 1911, 1921, 1931

Unit	**1911**	**1921**	**1931**
Greater Poona	188,701	214,796	250,187
City Municipality	117,256	133,227	162,901
Suburban Municipality	9,918	14,233	16,676
Poona Municipality	32,226	32,726	35,807
Kirkee	14,028	18,357	16,302
Suburbs	15,273	16,253	18,501

During 1901-1911, the population of Greater Poona increased by 13,238. The growth was significant as plague was raging in the city even during this decade. The growth in the city municipal area, during the decade, came to 5,875 and it was composed of 4,907 males and 968 females. In the Kirkee Cantonment the growth of 3,231 was made up of 2,541 males and 690 females. In the suburban Municipal area, the females showed a decreased of 349, but males an increase of 573.

In next decade i.e., 1911-1921, the population showed an increase of 26,095. More than half of this increase, 15,971 occurred in

[197] *Gadgil D. R., Poona: A Socio-Economic Survey, Part-1, pp. 20-23.*

the city Municipal area. The Suburban Municipal area recorded an increase of 4,315. In both the growth was equally shared by males and females.

During 1921-1931, the population of the city increased by 35,391. Nearly 75% of this growth was confined to the city municipal area. Of this nearly 17,000 were males.[198] The population of the Suburban Municipal area increased by 2,443; of which 1,418 were males. In the Poona Cantonment the growth amounted to 3,081 and of these 1,667 were males. Kirkee showed a loss of 2,055, mainly confined to males, which was probably due to the diminution of the number of troops. In the Suburbs the growth of 2,248 was made up by 1,798 males and 455 females.

Table No. 4.4 Census Population for the year 1941 and 1951

Unit	**1941**	**1951**
Poona City	258,197	480,982
Poona Cantonment	40,447	59,011

The procedure adopted at the census of 1941 was altogether different from that of previous censuses.[199] The figure for the City Municipality in 1941 includes the population of some parts of Greater Poona that came under Suburbs in 1931 and cannot therefore be compared with the figure for the City Municipality in 1931.[200]

Though we cannot compare 1941 census data with the previous decade report but one thing is sure that there was increase in the population in the city area as well as in Poona Cantonment area. In 1930s and 1940s the population growth was high compared to all previous census because in this two-decade Poona experience the establishment of

[198] *Ibid, pp. 20-23.*
[199] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 73.*
[200] *Gadgil D. R., Poona: A Socio-Economic Survey, Part-1, p. 23.*

large-scale industries and served as cause for the employment generation and consequently increase in the population of the Poona City.

Poona cantonment showed increase of 4,640. This figure is significant because the population of Poona Cantonment in 1881 was 30,129 and in 1931 was 35,807, so in last fifty years the area experiences increase of about 5000 and in one decade. This increase in population in cantonment area was of military in nature since this section of Poona city, from its establishment maintained its separate identity and it got reflected in every aspect of Poona cantonment including population.

During 1941 to 1951 the Poona City experience tremendous growth in both male and female population. In this decade more inflow of people in city took place for employment opportunity as the first five year of this decade were the years of Second World War, hence the military related industry experiences growth in this time period. At the same time though there was restriction on the circulation of food items and cloth but certain consumer goods experience increases in sale like milk and other locally brought food items and in the last two-decade Poona city witness increase in number of snuffs making establishment in city, this attracted unskilled man power in the city.

As there was increase in large scale industry in Poona City, corollary or subsidiary small factories also got established in Poona to cater the needs of these newly established industries.

In this decade Poona Cantonment also witnessed increase in population, but as the decade was influenced by Second World War, the growth was militaristic in nature.

4.4.3 Migration

The migration figures are available only for the Poona Taluka i.e., Greater Poona, including Aundh and Mundhwa, as a whole. Moreover, the birth-place statistics, which are the only migration statistics available in the Indian Census reports, do not correctly reflect the inward or outward flow of migrations to or from the city. In collecting these statistics, the census takes the birth-place as the sole test of the

enumerated person's normal residence and assumes that he has migrated to the place of enumeration from his place of birth.[201]

As the available data mainly relies on the information available regarding the place of birth hence, we have inadequate data to have a kind of analysis or to across certain conclusion regarding the migration pattern for Poona city in concern time period. Apart from the above mention limitation for the collection of data related to migration, the figures for the year 1921 and 1931 are available and those are given below:

Table No. 4.5 Birth Place, Proportion per 1000 of the whole population Poona Taluka[202]

Region of Birth	**1921**	**1931**
Poona District	603	637
Bombay Presidency including States and Agencies	241	251
Hyderabad States	29	23
Madras	-	16
C.P. and Berar	11	05
U.P.	05	04
French and Portuguese Settlement in India	06	03

Causes of Migration to Poona are as follows, A large majority had come to Poona seeking employment or work. Nearly 43 per cent of the total had come to the city for this purpose. Another 27 per cent of had come to Poona either because no employment was available in the villages or the land available to them was insufficient. The reasons may slightly differ between these groups but all of them had come to the city seeking employment. Together they amounted to 70 per cent. Besides,

[201] *Ibid, p. 23.*
[202] *Ibid, p. 24.*

these about 7 per cent had come to the city to take advantage of its educational facilities. Another miscellaneous group of about 10 per cent had come to the city not of their own volition. Half of these had been transferred by their employers to Poona in the course of their employment; about a quarter were female heads of families who had originally accompanied their husbands, who had been transferred to Poona. These women had become heads of families after the deaths of their husbands. The rest were those that had come to Poona because their fathers or sons had been transferred there. Among the remaining the largest group was that of refugees from Pakistan constituting about 3 per cent of the total. Of the rest a majority could not state the reason of their coming to Poona; while others had come because they were married to a person living in Poona, or for medical treatment or to enjoy city life or some, who after retirement, had come to settle down in Poona.[203] Paucity of material on the movement of in concern of migration to Poona city is hurdle in research as the migration has several aspect which were influencing nature of population of Poona city, on the basis of available sources the employment opportunity and centripetal tendencies in district population was the dominant factor in shaping migration pattern of the Poona city.

4.5 Intra City Transport in Poona

By the early decades of 20th century Poona city had grown in size and population, apart from this new industrial settlement sprung up in the city as well as in the vicinity, relatively good quality of roads were constructed within municipal limits, these factors allowed movement of people within city and for this different alternatives came up like bicycles, tongas, though traditional but it came under the regulation, bullock cart for movement of goods in city and in the last decade of our concern period i.e. 1940s, bus transportation was introduced in Poona city on selected routes, these developments are discussed in the following paragraphs.

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[203] Sovani N. V., Poona: A Re-Survey, Gokhale Institute of Politics and Economics, Poona, 1956, pp. 131-134.

4.5.1 Bicycles

According to Gokhale institute survey in 1936-37, there were in all 230 bicycle shops in the city and 401 persons were engaged in them. Of these 29 were included in sample survey. Three of these were in Raviwar peth, 2 each in Shivajinagar, Sadashiv, Budhwar, Nana, Bhavani, Rasta, Somwar, Vetal, Ganj and one each in Shanwar, Shukrawar, Nihal, Kasba, Narayan and Mangalwar peths. Only 8 of the shops in the sample sold new bicycles, of the remaining nearly half sold old cycles. The others only sold accessories and hired out cycles and repaired them. The main business of all the shops was to repair bicycles and to hire them out at fixed rates per hour.[204]

4.5.2 Tongas

The tonga was the chief vehicle of passenger traffic in Poona. Other agencies of passenger traffic, such as taxis or bullock carts were of minor importance. The bicycle was very common in Poona and met, in no small way the requirements of people moving to work, etc. At the time of survey i.e., 1936-37, there was no motor bus service in the city. There were only a few Victories. The tonga, therefore, completely held the field of passenger traffic. In the city, there were 452 tonga owner with 594 tongas and 862 horses.[205]

4.5.3 Bullock Carts

As a vehicle for goods transport the bullock cart was much used in Poona. A few bullock carts were also used for passenger transport. In Poona city area there were, at the time of survey, 610 bullock carts. A large majority of these were run as single-cart units. The 610 bullock carts and 760 bullocks in Poona were owned by 499 persons.[206] This numbers of Tongas and Bullock carts in city indicate that for intra city transport old means of transportation were dominant in Poona City.

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[204] *Gadgil D. R., Poona: a socio-economic survey Part-1, p. 238.*
[205] *Ibid, p. 248.*
[206] *Ibid, p. 244.*

4.5.4 Bus Transport

A private company known as the Silver Jubilee Motors Ltd., commenced operating a bus service in Poona city on 1st march 1941. After nine years, the service was taken over by the Poona Municipal Corporation on March 1, 1950.

Table No 4.6 The starting points and destinations of the various routes[207]

Routes	Course (via)
Swargate to Poona Station	Budhwar chouk and Shivai Nagar
Swargate to Hingne	Deccan Gymkhana and Prabhat Nagar
Swargate to Poona Station	Jangali Maharaj Road
Deccan Gymkhana	Rastapeth, Poona Station
Deccan Gymkhana to Kirkee Bazaar	Poona Station
Deccan Gymkhana to Poona Station	Vishrambag Vada
Deccan Gymkhana to Aundh	Ganeshkhind
Deccan Gymkhana to Pashan	Shivajinagar
Deccan Gymkhana to University	Mhasobagate
Deccan Gymkhana to Poona Station	Ganeshpeth
Poolgate to Hadapsar	Vanavadi
Poolgate to Hadapsar	Bhairobagate

[207] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 393.*

Poona Station to Mental Hospital	Yeravada
East street to Ghorpadi	Kahun Road

4.6 Education in Poona City

Education is most important aspect in understanding socio-cultural life of Poona. Taking note of Nature and scope of education system during concerned period can provide valuable insights into the subject matter. Purpose of incorporating education as a section in research related to transportation and urbanization is to understand the education in collective manner including educational policies, structure, infrastructure, and allied establishments like archives, libraries, reading halls with supplementary facilities like accommodation, stationary shops, book stores, publishing houses, and printing press. All above mentioned factors play cumulative role in analyzing education during concerned time period in Poona. Since, transport system plays vital role in flourishment of education system in Poona. As majority of the above listed aspects are in proximity from each other and catering complimentary role in sustaining and improving education system in Poona. Hence this section is incorporated in this research and analyzed through following paragraphs.

4.6.1 Pre-British Educational condition in Poona City

Education in Maratha times was carried on by means of indigenous schools, the only trace of public education being the yearly distribution of charity called dakshina which used to cost about £50,000 i.e., Rs. 5 lakhs, a year. The original plan was to give pries to learn Brahmans, but the institution degenerated in the time of the last Peshwa during 1796-1817, into mere giving alms and handsome sums were given to all Brahman claimants.[208] Orthodox social structure affected adversely on the education system in pre-British period. The right to take education was restricted to a particular community and rest of society was denied to

[208] *Gazetteer of the Bombay Presidency, Vol. XVIII., Part III., Poona, 1885, p. 48.*

take education. Caste system played damaging role in improving vocational, secular subjects.

Even those who were getting education, they had confined themselves around religious subject which hampered the growth of society as civilization. Apart from few exceptions like study in linguistic and mathematics, other scientific subjects were neglected.

4.6.2 Early Efforts for Reshaping Education in Poona City

After assuming power in Poona by British, the abolition of the dakshina would have been extremely unpopular, but the sum was too enormous to waste. Mr. Elphinstone therefore did away with all but the original distribution of prizes, which cost, in 1819, £5000 i.e., Rs. 50,000. This expenditure was kept up, but most of the prizes instead of being conferred on proficient in Hindu divinity were recommended by Mr. Elphinstone to be allotted to those skilled in the more useful branches of learning, law, mathematics, and others and to a certain number of professors kept to teach those sciences.[209] Though it was small step but it was significant as first step toward change. Reducing budget for fellowship may not be considered as welcome move but the revised criteria set for the prize was an indication for the future course to the British government's policy for education.

In 1821, a college for the encouragement of the study of Sanskrit and of ancient Hindu literature and science was opened at Poona. The college was however not at first successful and in 1823 the Court of Directors suggested that it should be closed. But Mr. Elphinstone, then Governor of Bombay, was strongly opposed to its abolition. He maintained that the institution had been founded for the conciliation of a large and influential section of the people, and that, when once the college had become an established place of resort for Brahmans, it would be easy to introduce such gradual improvements in its organization as would make the institution a powerful instrument for the diffusion of knowledge and for the encouragement of the learning of the country.[210]

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[209] *Ibid, p. 49.*
[210] *Ibid, p. 49.*

At the beginning of British rule education was common only among the Brahminic and the Bania i.e., the priestly, clerical, and trading castes. Subsequent general progress in education was marked by a series of movements. In each socio-economic stratum progress was indicated by an increase in proportionate numbers in higher and higher stages of education and by progressing towards a point of saturation in the lower stages. In society, the movement was exhibited by progress being made simultaneously, though at different levels, in all strata.[211] In the early years of change in education system, experienced the dominance of traditionally educated section of Indian society to receive modern education but slowly the students from other strata joined in and efforts of social reformers played an eye-opener role in this regard.

Mr. Jacquemont, who was in Poona in 1832, has left the following account of Poona schools: Mr. Elphinstone was keen to encourage education. In several of the chief cities he founded schools to teach English, drawing, geometry, and algebra. One of the best was under Mr. Jervis at Poona. There were 150 scholars from fifteen to twenty years of age. Some learnt English, others mathematics, carpentry, making plans and surveying. They had supplied engineers. But the Government was the only employer. Their algebra and geometry were no help to the others in earning a livelihood. One of the best a Portuguese by birth was anxious to be Jacquemont's servant. Both master and pupils were paid, the pupils 10s i.e., Rs. 5, a month. It was cruel to give poor children a high training, pay them to learn, and then to leave them without work. Government forced by humanity as well as economy was busy cutting down if not stopping the school.[212]

This account is important in terms of its content as well as in terms of year in which the observation was made. Now considering revised criteria for Dakshina fellowship and this above-mentioned observation both events from Poona are predating 1835's minute on education. In this relation it is worthy of studying in detail about

[211] *Gadgil D. R., Poona: A socio-economic survey, part-II, p. 256.*
[212] *Gazetteer of the Bombay Presidency, Vol. XVIII., Part III., Poona, 1885, pp. 50-51.*

education as an instrument for colonialism that later worked as double edge sword.

4.6.3 Nature of Education system under British Rule

Among institutions of vocational Education, special mention may be made of the Primary Teachers' Training Colleges; To begin with, the only training institutions were the respective government training colleges for men and women. The Municipal Technical School was established towards the end of the 19th century. The courses in it were meant chiefly for students who had not made much progress in secondary education and were of a directly vocational type. In the opening decades, the courses were in carpentry, smithy, metal turning and signboard painting.[213]

The nineteenth century witnessed a centralization of the educational infrastructure and a replacement of moral-religious with secular and scientific learning. Government control and government investment played a direct role in shaping the new system. The new system offered better preparation for working in the modern economy or in government administration. The whole informal structure steadily crumbled over the next hundred years. It decayed because it could offer no marketable degree, had little symbolic value, had a small base of patronage, and adopted obsolete media of instruction.[214]

By the 1909, Poona has twelve high schools and three colleges: the Deccan and Fergusson College teaching up to the degrees of B.A. and first LL.B., and the College of Science with special training for civil engineers and agricultural specialists. There is a medical school attached to the Sassoon Hospital, a forest class at the College of Science, a municipal technical school, and a reformatory at Yeraoda.[215] This overview can make us infer that under colonial authority and even after the 1882 and 1904 regulation related to education, Poona managed to

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[213] Gadgil D. R., Poona: A socio-economic survey, part-II, pp. 283-84.
[214] Roy Tirthankar, The Economic History of India 1857-1947, p. 310.
[215] Imperial Gazetteer of India, Provincial Series, Bombay Presidency, vol. 1, 1909, p. 526.

sustain with above mentioned institutions is valuable for economic and social progress.

Following table gives sketch of primary schools present in Poona:

Table No. 4.7 Number of Primary schools and pupils in Poona in 1950[216]

Management	No. of Schools	No. of Pupils
Public Schools	88	29,014
Private Schools	54	15,258
Total	142	44,272

4.6.4 Status of British Education System in Mid-20th Century

In the fifteen high schools for boys in Poona, there were 9,320 pupils in 1953-54 as against 7,811 in 1937-38, an increase of about 19 percent. The proportion of boys of the backward class was slightly less than 2 per cent in 1937-38 but had increased to 3 per cent in 1953-54. The total number of boys in the 48 high schools in the Poona area in 1953-54 was 19,608. The proportion of boys from the backward class in them was 6 percent.[217] Since, the number of primary schools experienced three times rise in their number and total number of students also increased by more than double. These twenty years marked change in the primary education because of general awareness enhance in the masses about the significance of education and prominent indicator of this awareness is rise in backward class students, from 2 per cent in 1937 to 6 per cent in 1953.

In the 8 girls' high schools in 1937-38, there were 2,395 girls as compared to 4,032 in 1953-54, an increase of 66 per cent. The proportion of backward class girls was one-half of one per cent in 1937-38. This had

[216] *Gazetteers of Bombay State, revised edition, District Series, Vol. XX, Poona District, 1954, p. 523.*
[217] *Sovani N. V., Poona: A Re-Survey, p. 526.*

increased to 2.55 per cent in 1953-54. In 1953 there were 15 high schools for girls with 6,232, girls of whom a little less than 2 per cent were from the backward class.[218] In case of girls' education, good sign is that the increase in number of girls schools from 8 in 1937 to 15 in 1953. Though total girls' numbers are near to 2 per cent, but compare to previous figure of one-half of one per cent, this number is welcomed.

In 1937-38, the three arts colleges in Poona were having 2,663 students. The number had increased to 4,583 in 1953-54, an increase of about 70 percent. In 1937-38 the proportion of backward class students in these colleges was a little than 1 percent. In 1953-54 there were, 4,934 students in the six arts colleges in Poona and the proportion of students from the backward class was slightly more than 2 percent in them.[219] In the higher education number of colleges increased from 3 to 6, but if see the figures of students increase confined to old three colleges only.

In the three professional colleges, there were 748 students in 1937-38, of whom 2.5 per cent were from the backward class. In 1953-54 the same colleges had 1,257 students, an increase of 68 per cent. The proportion of students from backward class had increased to 4 per cent.[220] The number of professional colleges increased from 1937-38 and total number of students also. The B. J. Medical School was turned in to B. J. medical college, and this increase in number of professional colleges encourages employment-oriented education among students.

4.7 Social Reform Movement

Mobility is key to reforms, and transport system on its face may be considered for facilitating movement of goods and passengers but along with them it also transports ideas that amplify the reforms movement. Hence this section of social reform in incorporated.

Hinduism, as Max Weber observed, had become a compound of magic, animism and superstition and abominable rites like animal sacrifice and physical torture had replaced the worship of God. The priest

[218] *Ibid, p. 526.*
[219] *Ibid, p. 527.*
[220] *Ibid, p. 527.*

exercised an overwhelming and, indeed, unhealthy influence on the minds of the people. Idolatry and polytheism helped to reinforce their position. The socially debilitating influence of the caste system which perpetuated social distinctions was universally recognized as an area which called for urgent reform. It was morally and ethically abhorrent; more importantly, it militated against patriotic feelings and negated the growth of democratic idea. [221]

The early policy of the East India Company was that of non-intervention in Indian social matters. Since the end of Hastings's tenure there was gradual move towards cautious intervention in Indian social institution. What contributed to this shift, were several ideological influences in Britain, such as Evangelicalism, Utilitarianism, and free trade thinking. While the utilitarian began to talk of appropriate social engineering and authoritarian reformism, the Evangelists argued about the necessity of government intervention to liberate Indians from their religions that were full of superstitious, idolatry and tyranny of the priests. The free trade thinkers too wanted government intervention to free Indian economy from the shackles of tradition to ensure a free flow of trade.[222]

4.7.1 Social Reforms through Writings

Social reforms were the struggle against the evils prevailed in the Indian society itself, hence the earlier efforts were conciliatory in nature and the 'pen' served as vehicle to brought such changes in the society, especially after the violent approach to throw out the British yoke was failed, the urge for reform in one's own society was felt and, in these newspapers, contributed immensely. In this context the work of Bal Shastri Jambhekar was pioneering in nature and one of the early efforts.

Jyotiba Phule besides being a leader and organizer of the lower caste movement, Phule was also a thinker and therefore, found it necessary not only to write pamphlets but also to put forward his basic

[221] *Chandra Bipan, India's Struggle for Independence, Penguin Books, London, 1989, pp. 83-88.*
[222] *Bandyopadhyay Sekhar, From Plassey to Partition and After, 2nd ed., Orient BlackSwan, New Delhi, 2015, p. 139.*

philosophical position. In Gulamgiri in 1873, he has given a historical survey of the slavery of lower castes.[223] Dinbandhu newspaper was also significant in understanding Phule's view on Indian society. In 1883, Phule published a collection of his speeches under the title Shetkaryacha Asud i.e., the cultivator's whip-cord, where he has analyzed how peasants were being exploited in those days.

Indian society was founded on the Varna system. Phule challenged the view that it was God-ordained. He held that this claim was made to deceive the lower Varnas. Since this claim was made by the religious texts of the Hindus, he decided, to expose the falsehood of these texts. Phule depended upon the contemporary theories and his own creativity to interpret these texts. In order to keep a better hold over the masses, they devised the mythology,[224] the Varna and caste system and the code of cruel and inhuman laws. They founded a system of priest craft which gave the Brahmin a prominence in all rituals. The caste system was a creation of cunning Brahmins. The highest rights and privileges were given to the Brahmins whereas Shudras and Atishudras i.e., untouchables were regarded with hatred and contempt. Even the basic rights of humanity were denied to them. Their touch or even their shadow was considered as pollution.

The Agarkar writes that technological development in Industry and transportation is being used for the colonial motives and most of wealth in Bombay city belonged to British people. It was clear in the opinion of Agarkar that technological advancement which had taken place in 19th century India in different fields of economy were for the benefits of British rulers and very little fruits of this development reach to native Indians. Agarkar was against social boycott, and in Poona city those who were practicing this mainly shastris, Agarkar raised question on very nature of such boycott that handful people could not decide that person or family should be boycotted or not. Agarkar also appealed to the people of Poona that do not come under the influence of people who are interpreting religious laws in adverse manner and one should use

[223] *Phule Jyotirao Govindrao, Gulamgiri, Poona City Press, Poona, 1873, preface.*
[224] *Ibid, p. 3.*

one's own intellect before supporting or condemning issues like social boycott.[225]

The newspaper was instrument or sometime weapon in the hands of social reformers, the writings about contemporary social issues and at the same time reinterpreting Indian social history was the task done by these reformers. The transportation helped it in a circulation of the copies of these newspapers and post service and railway mail service were instrumental in this concern.

4.7.2 Social Reforms through Institutional Work

Writing about social evils and odds is one part of the work and this should follow by the action or field work-based approach. In this regard the institutional approach and working on ground realities were two aspects which were fulfilled by the social reformers. Jyotiba Phule was one of the frontrunners in this concern, the organization which was founded by Phule himself and name of that organization was Satya Shodhak Samaj. It was established in 1873 by him and his colleagues to organize the lower castes against the orthodox Hindu social order based on Varna and caste system.

Karve became increasingly concerned with illiteracy among women, and on his retirement from Fergusson College he started Shreemati Nathibai Damodar Thackersey Women's University in 1916. He later widened his social reform efforts to include the establishment of societies for village primary education and the abolition of caste. Karve's autobiography was entitled Atmavritta in 1915.[226]

In March 1929, Karve left for England. He attended the Primary Teachers' Conference at Malvern and spoke on 'Education of Women in India' at a meeting of the East India Association at Caxton Hall, London. From 25 July to 4 August 1929, he attended an educational conference in Geneva and spoke on 'The Indian Experiment in Higher Education for

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[225] *Altekar Madhav Damodar Ed., Sampurna Agarkar, vol. 3, Agarkar Prakashan Mandal, Pune, 1940, pp. 59-61.*
[226] *https://www.britannica.com/biography/Dhondo-Keshav-Karve*

Women'. From 8 to 21 August, he attended the international meeting of educationists arranged by the New Education Fellowship in Ellsinore.

During this tour of America, Karve delivered lectured at many places on women's education and social reforms in India. He also visited the Women's University in Tokyo. During this round the world tour, he collected Rs. 27,000 for his Women's University. He returned to India in April 1930.

In December 1930, Karve left for Africa. He visited Mombasa, Kenya, Uganda, Tanganayika, Zanzibar, Portuguese East Africa and South Africa. During the tour he collected Rs. 34,000. He returned to India in March 1932.[227] Karve's work is more significant from the point of view of highlighting role of transportation, Karve travelled around the world and brought economic aid as well as able to create awareness among the foreign people about the social conditions in India. Hence in the Karve's work, the importance of changed nature of transportation system is clearly visible.

Improved transportation system played role in social reform movement significantly as the progress took place after interaction and this conversation to take place the mobility of person or group of people is necessary, as ideas may move through paper or person transportation system is going to be the inseparable part of the process, hence in the social reform movement that took place in India and especially in Poona City transportation system had major role to perform, as change is the nature of human society and for change mobility of the people was necessary to achieve this transport severed as vehicle for these developments in social life of India.

4.7.3 Dalit Reformers from Poona

The etymology of the term Dalit can be traced back to the 19th century when a social reformer Mahatma Jyotirao Phule used this term to describe the outcastes and untouchables as the oppressed and crushed

[227] *Joshi N. M., Maharshi Dhondo Keshav Karve, Maharashtra Rajya Sahitya ani Sanskriti Mandal, Mumbai, 2003, pp. 33-38.*

victims of the Indian Caste system.[228] The word Dalit literally means oppressed. It is used as a synonym for untouchable. It also refers to casteless sections of India. Dalit is also called out caste. It is a self-designation for a group traditionally regarded as untouchables.[229]

The downtrodden section of the Indian society experienced fundamental change under British administration. With the introduction of modern education and emphasis on secular subjects in the school curriculum and the access to education was given to them. This people were also absorbed in the British administration, altogether this change enabled them to come out of the age-old dogmas about their status in the society and fixed frame of their life.

Education played major role in the social movement but the theoretical knowledge and the access to education was half side of the dalit movement, the major task in front of the early enlightened people was to inculcate the modern values like equality and fraternity in the society and in this attempt persons like Shivram Janba Kamble, G.B. Walangkar.

G.B. Walangkar was the first to fight for the rights of the Mahars in Maharashtra. He retired from military service in 1886 and mobilized people and made them conscious about their human rights. He highlighted the grievances of the people through his writings in two Marathi newspapers, Dinbandhu and Sudharak, in which he argued that casteism and untouchability had no religious base and were creations of the Hindus. To prove his theory, he wrote a booklet titled "Vital Vidhvansak".

He established Anary Doshpariharak Mandali at Dapoli in the localities of Ratnagiri district, where the untouchable castes such as Chambhar and Mahar pensioners lived. In 1890, recruitment of the Mahars, the Chambhars, etc., was stopped. On top of it, those in service were also asked to leave. Upset with this, Walangkar petitioned the

[228] *Sadangi Himansu Charan, Dalit the Downtrodden of India, Isha Books, Delhi, 2008, p. 25.*
[229] *https://www.arcjournals.org/pdfs/ijsell/v3-i2/9.pdf*

British government demanding that the so-called "untouchable" castes be taken back into the army. In 1895 at Social Conference held in Poona, he appeals to all Hindus to open their schools, wells, lakes, and entry in different trading activities and public services to dalits.[230]

Anarya Doshpariharak Mandali was succeeded by the Oppressed India Association of Shivaram Kamble. Kamble founded this association in 1917. Kamble became the unanimous leader of the "untouchables" in Poona, and started a Marathi newspaper Somawanshi Mitra, in Pune in 1909 to educate the masses. He began the struggle from within the fold of "untouchables" to do away with the customs of devdasi and Potraj prevailing among the Mahars and the Mangs. He taught at a night school and was a leader in the Parvati Temple Satyagraha, organized by the untouchables and a few caste Hindus in 1929. Kamble used such methods as forming an organization for action, submitting petitions, opening schools and libraries, etc., he asked the British Government to provide employment opportunities to the Mahars in the military. He worked with Dr. Ambedkar on several "untouchable-related" issues.[231]

Due social awakening movement started by Shivram Janba Kamble and Maharshi V. R. Shinde, untouchables in Poona had become aware about the cause of their sufferings and simultaneously awareness was created about their rights. That's why they took active part in Dr. Ambedkar's movement.

Poona District Untouchables council's first conference was held at Narayangaon, Tal. Junnar on 23 and 24 May 1931 under the chairmanship of Dr. Ambedkar. About 5 to 6 thousand people from different parts of Pune district had gathered for this conference. Munshisheth, Devidas, Ramchandra Anaji, Butte; Honorary Magistrate and president of Taluka local board Junnar, Dashrath Panduji Bankar; Member district local board Pune, Gajanan Raoji, P. Bhujbal; Vice-president of Taluka local board Junnar, Bhimaji Genuji, P. Khabade,

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[230] *Bhosale Jalindar, Aadhunik Maharashtratil Parivartanacha Itihas, Payal Publication, Pune, 2007, pp. 166-67.*

[231] *Paswan Sanjay Ed., Encyclopedia of Dalits in India, vol. 3, Kalpaz Publication, Delhi, 2002, p. 103.*

Dumbare, Pate, Tambe, Shinde, Mistri, Bhujbal were the local and Subhedar Ghadage, Thorat, Gaikwad, Choure, Chandanshive, Ghogare, Madhale, Ranpise etc. were prominent leaders from Pune. On 22 May 1938 second conference of Pune district 'Vatandar Mahar Council' was held at Ghodegaon. Dr. Ambedkar presided over the conference. R. R. Bhole, K. R. Madhale, Revaji Dagaduji Dolas, R. R. Borikar, Shankar Mohanji Mistry, Gajoba Dudhavade and from Pune V. B. Bhalerao, Gaikwad Master, Maruti Sabaji Gaikwad and Walhekar attended the conference.[232]

The Communal Award declared by J. Ramsay Mac Donald, the then Prime Minister of Great Britain, conceded Separate Electorates to the Depressed Classes, was the crowning glory of the splendid and stupendous work done by Dr. Ambedkar at the Round Table Conference. On account of his magnificent, learned and unparallel contribution to the Round Table Conference in the spheres of social, political and constitutional reforms, Dr. Ambedkar was acclaimed as the uncrowned king of the Depressed Classes. But, opposition and fast unto death by Mahatma Gandhi led to "Poona Pact." The crux of the Poona Pact was Separate Electorates granted by the Communal Award which were ultimately withdrawn and the method of Joint Electorates was introduced with the principle of reservation of certain seats for Depressed Classes in the Central as well as the Provincial Assemblies. The Poona pact was the result of an agreement generously and graciously agreed by Dr. Ambedkar to save the life of Mahatma Gandhi, although he knew that it was no splendid gesture on the part of Caste Hindus.[233]

Ambedkar complained of blackmail, the pact marked the start of movement against untouchability within the Indian nationalist movement.[234] The Poona Pact was one of the Major events in the struggle against social injustice and after this the nature of national

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[232] *Aniruddha Jyoti S., Contribution of Puneite Untouchables in Dr. Babasaheb Ambedkar's Movement, Historicity Research Journal Volume 2, Issue 1, Sept 2015, p. 3.*
[233] *Narake Hari Ed., Dr. Babasaheb Ambedkar: Writings and Speeches Vol. 17 (Part-1), Dr. Ambedkar Foundation Ministry of Social Justice & Empowerment, Govt. of India, New Delhi, 2003, p. XIX.*
[234] *https://www.britannica.com/event/Poona-Pact*

movement got new turn and the questions were raised about the position of down trodden sections of Indian population, specially who are victims of the caste system.

Urbanity facilitates the dissent and various instruments for upliftment of down trodden sections can be made available in urban areas like modern education and new employment opportunities. This is very small-scale attempt is made to highlight the role of Transportation and Urbanization in changing the nature of downtrodden in Indian society with concern to Poona.

4.8 Institutionalization of Political Movement

In 1858, British colonial establishment in India passed from British East India Company to British Crown. The Queens Declaration in 1858 anger of Indian Princely states were cooled down. Henceforth the political movement in India went into the hands of Modern Educated Indians. Since these people were aware about the institutions through which British people's motherland was administered, and when they compared the situation in India with that of Britain, they come across major and fundamental disparities practiced in Britain and India by the same ruling authority.

After the failure of armed rebellion against British in 1857, Indian intellectual class got assured unfruitfulness of aggressive measures to get rid off from British authorities. Hence, new opposition to colonial policies came in more organized form and more on the ideological level.

On 2 April 1870 public men of Poona launched the Poona Sarvajanik Sabha. The Sabha was intended to be 'a mediating body, between the government and the people, which may afford to the latter facilities for knowing the real intention and objects of Government as well as adequate means for securing their rights, by making a true representation of the real circumstances in which they are placed.[235] such

[235] *http://journals.sagepub.com/doi/pdf/10.1177/001946466900600303*

organization though confined to small section of society in their initial phase contributed actively generating political awareness.

The most notable among the organized opposition was the formation of Indian National Congress. This was the first of its kind all India level organization which had representation from all corners of India.

In March 1885, it was decided to hold a meeting of representatives from all parts of India at the ensuing Christmas. Poona was considered the most central and the most suitable place. Mr. Chiplunkar and others of the Sarvajanik Sabha have consented to from a Reception Committee, in whose hands will rest the local arrangements. But the first meeting did not, however, took place at Poona, for only a few days before Christmas, some sporadic cases of cholera occurred, possibly presaging an outbreak, and it was thought wiser to move the Conference, now call the Congress to Bombay.[236]

Though the first session of congress could not take place in Poona due to cholera and it was shifted to Bombay, few days before the schedule, but as it was planned in Poona, after concerning the good railway and road connectivity of Poona with the other parts of country.

In institutionalizing political movement Poona based Servants of India Society played crucial role in politicizing Indian masses. In 1905, when Gokhale was elected president of the Indian National Congress and was at the height of his political power, he founded the Servants of India Society to specifically further one of the causes dearests to his heart: the expansion of Indian education.

The work of society consists in enlightening public opinion by means of newspaper owned or controlled by the Society and articles in the Press, issuing pamphlets and delivering speeches. The society was to undertake the task of the political education of the people with any chance of success. Members of the society were deputed to various parts

[236] *Sitaramayya Pattabhi B., History of the Indian National Congress, vol. 1, S. Chand, New Delhi, 1935, pp. 14-17.*

of the country on Congress work before the establishment of the Branches.[237]

Means and modes of transport system were always in the background throughout this freedom movement. Since the mobilization of Indian masses through education, press and speeches played major role in national movement, in this transport serve immensely as circulation of newspapers and travelling of nationalist personalities from one city to another became frequent due to efficient transport facility.

A synthesis of cultures from different region can be facilitated in urban environment. Our ability and eagerness to tame our surroundings plays crucial role in formation of urban areas.

Social change or reform and transportation has complementary relation with each other as change could take place after interaction and for interaction to take place mobility of the people is required and in this manner transportation system play its role in bringing social change. Introduction of education and modern industries which had created employment opportunities in the Poona city, this caused the migration of people to Poona and helped in bringing composite nature of society in this process the improved transportation played crucial role.

[237] *A brief account of the work of The Servants of India Society, Poona, June 1905-December 1916, pp. 5-8.*

Conclusion

Available is made accessible

Transportation has influenced human society since the time immemorial, because movement is the basic instinct of humans and progress could not take place without the mobilization of people, goods, and ideas. Hence means and modes of transportation has influenced economic, social and political structures of a human settlements. Transportation from the early time has playing key role not only in the movements of goods and people, but the ideas and knowledge from one place to another.

As Rome could flourish due to its road connectivity and effective mobilization of its forces, same way supremacy over sea from 16th century onwards helped the European nations to colonize different parts of world. Even if we take example of Second World War, the United States of America advancement in the air transport helped them to get winning edge in the war. In above mentioned examples the transportation was major driving force but at the same time it was one of the many factors that shaped history.

Transportation is an indispensable component of the economy and plays a major role in spatial relations between locations. Transport creates valuable links between regions and economic activities, between people and the rest of the world.

Transportation in its literal meaning conveys that to carry from one place to another. Development of transport system has experienced various epoch right from the discovery of wheel, domestication of animals and road building methods then after the scientific revolution mechanized vehicles like motor car and railways, these changes brought drastic changes in economic and political structures of the time. Transportation is a common need of all people and at every aspect of productive and destructive activity, transportation played crucial role.

In Indian sub-continent as well the transportation system has played important role from proto history period i.e., Harappa Civilization, to till toady, introduction of horse and railways were the two prominent milestone in the transportation history of this region as these two means of transport influenced the Indian society deeply. The level of transportation system depicts the technological advancement in the society in concern of science and gives idea about the social environment.

Transportation and urbanization have direct link with each other, since modes of transportation decides the reach of that civilization and means of transport determine the efficiency of the particular society, hence understanding role of transportation in urbanization become significant and consequently urbanization itself. Urbanization as major outcome of transportation system plays a crucial role in the progress of human civilization. Non agriculture settlement, this is the point of difference between rural socio-economic structure and urban centers. Though agriculture is the foundational occupation for the survival of humans, but in this context of urban and rural settlement, agriculture as a pivotal concern in rural life style comes with certain drawbacks. Hence the term used in this research as non-agriculture settlement is purely for the indication of availability of multiple occupation as a feature of urbanization.

Indian sub-continent experienced four phases of urbanization in this phases transport system of respective period has influenced the economic and political structures of time. As trans regional trade practiced during Harappa civilization, role of horse during territorial kingdoms of Mahajanpadas and consequently the emergence of Maghada as imperial authority. In medieval period nature of transport system remained same but there was change in its scope as it was widened. Colonial period was a period of major shift from the point of view of transportation as the superior quality road building methods were introduced and the mechanized vehicles were also brought to India, apart from this the railways played crucial role in economic, military, political and social history of India.

Historically, evolved urban settlement have played more significant role in urban process. The sustainability of urban settlement depends on multiple factors like administrative, economic, socio-cultural, religious and political, if urban settlement is a result of one factor mentioned above, then that settlement is more likely to decline and if the settlement is comprising multiple factors, then the sustainability of the urban settlement is greater. Variety of functions performed at urban area facilitate growth in both qualitative and quantitative aspects of urban life, variation play important role in this concern.

The role of transportation could not be studied in isolation or restricted to a one city it must consider in to the relation of that city's connectivity with other economic and political centers present in region or across the region. Poona does not have access to the sea and even the rivers which flow through it are not navigable for transporting either people or goods, therefore the roads become rather important mode of transportation.

Old Poona city has been divided in different peths it has developed without any town planning as such hence the roads are narrow, and its growth was not a directed one. Peths in Poona City, this has very unique position in the development of Poona because this part of the city experience progress from small Kasba to a city with its cultural, educational and strategic importance.

Poona in pre-British period was the residence of Maratha State's Peshwa and received considerable amount of prominence in the 18th century political, military, and economic life. In this period the connectivity of Poona through road transport increased and the size of Poona was appreciated. The kasba town turned into a city during Peshwa period. Due to the intense political activity in Poona in 18th century caused the improvement of the basic infrastructure took place like, water supply, roads, public and private construction activity.

From Peshwa period onward Poona's connectivity was ensured as it was considered as de facto capital of the Marathas, hence roads connecting to major administrative and economic center were given

attention during 18th century. Apart from this it was the residence of Peshwa, Poona's military importance also gone up and provisions were made to provide mobility to the troops to major strategic post in territory which was directly or indirectly administered by Marathas.

Though the length and number of roads connecting Poona increased during 18th century but the nature of this roads were fair weather kind of roads which are useful only during moderate weather conditions and monsoon was period during which most of the regions used to get cut off from the major economic centers. Apart from this, we find that ruling authority was so preoccupied with their political and military affairs; hence they could not devote their time and resources to the infrastructure building activity on large and permanent basis. With a few exceptions of bridging activity and some efforts to keep major military stations in contact with headquarters, apart from this we don't come across any big measures from ruling authority in concern of Poona about the transport system.

With the entry of British colonial authority in Indian subcontinent as political power and consequently by middle of 19th century acquired the supreme status in subcontinent as the major military, economic and political authority, as in the first quarter it self the majority of the Indian territory were under the British and it created necessity for them to have their military center well connected to each other as the survival of the colonial authority primarily depends upon their militaristic supremacy. Hence the attention was given to the reparation of old highways and construction of new ones.

Introduction of new road building methods like Macadamized and Telford, which were more sophisticated and used to remain in operation during rainy season as well, this shift in road construction method enabled British to make a firm grip on Poona and become established authority in Poona not only around coastal cities but on hinter land as well, as Poona is a land lock region.

Major shift in the transportation was brought by the introduction of railways in India as it saved the time and distance of travel. The

railways were introduced in India to cater Economic, military and political concerns of British but the British East India Company was a economic organization first, hence the first line was opened in Bombay connecting cotton producing region to the Bombay city in 1853, and it took five years only to reach at Poona as Bombay-Poona line was opened on 14 June 1858 (with the exception of Bhorghat section, that was opened in 1863). This shift in the means of land transportation brought changes in economic, social, and political life of Poona.

Railways not only helped intercity transportation but it served as major cause for the further development in road building activity to supplement the railways. The railways and roads played complimentary role to each other. Because of railway line connecting major district headquarters and presidential cities, scope of Poona's connectivity got enhanced and the influence of the changes introduced in transport system could be felt by administrative machinery first as the change in transport system was not restricted to the modes of transportation but to the means of transportation as well. The railways experienced further growth in their expansion as the opening of Poona-Nira Line in 1886 it encouraged the connectivity of Poona to its southern region. This widened the scope of railway transport via Poona as in the 1907 the amalgamation of Madras and Southern Mahratta Company, enhanced the connectivity of Poona city as the south India got connected to Poona.

The railway network was expanding in India, decade by decade and the need was felt by ruling authority for its regulation, as the economic benefits remained the primary objective in front of the colonial government. By the mid-19th century British were the paramount authority in Indian sub-continent and transportation served as means for maintaining their hold over the British Indian possession. Hence different experiments were carried out in different regions of India.

In the initial phase contracts were given to private companies for construction and maintenance of railway lines, this phase known as old guarantee scheme where the private companies enjoyed wide powers and privileges in administering railway lines, hence in 1870s government started constructing and maintaining its own line but authorities came

across limitations that they could not extend rapidly so in 1882 another policy was introduced i.e., to have agency companies, under this the ownership will remain with state but the construction and operation will be looked upon by companies. This phase experienced growth in railway networks and improvement in standard of lines also took place.

In the first decade of 20th century the companies under old guarantee scheme like Great Indian Peninsular Railway Company came to the expiry of their contract hence new agreement were signed, according to which the lines of company will be owned by government but worked and operate by company, this policy was adopted. Till 1925 GIPR Company was a significant part of railway administration regarding Bombay-Poona line, after 1st July 1925 the management of line came directly under the control of government and Madras and Southern Mahartta Railway Company's line on 1st April 1944, since onward the railway lines in Poona City managed by Government.

Meanwhile, various improvement in railways took place, electrification was one of the significant development that was first carried on harbor line in Bombay in 1925 and the Poona-Bombay line was under process during 1929, apart from this as the Poona-Bombay line experienced good amount of transition of goods and people, railway related infrastructure experienced improvement as the stations on the line were upgraded and railway workshop was built at Lonavla, construction of Bhushi Dam took place to cater the requirement of railways.

Introduction of motor vehicles and better-quality roads connecting Poona with different centers of India, by the first decade of 20th century number of motor vehicle on roads increased in sufficient quantity that government had to come up with law for regulating road transport. Motor Vehicle Act of India 1914, played pioneering role in regulating motor transport on road though previously Bombay presidency had its law for road transport but 1914 Act was of all India level.

In 1939 British government of India came up with new act named Motor Vehicle Act of India 1939, this act tried to rectify the

mistakes committed in the previous law and attempt to cover maximum aspects regarding the Motor Transport regulation, in this act establishment of regional transport authority was purposed to manage increasing number of motor vehicle on roads. This act attempted to rectify the clauses of previous act which were experiencing inadequate on ground reality.

During the first decade of 20th century the regulation of transportation became necessary issue for the colonial government as the law regarding movement of people from British India to another territory became important concern for the government as the political network of roads were increasing and the number of motor vehicle also, these lead authorities to have the framework to regulate the road transport, the requirement of law was not only restricted to the administration or attempt to bring discipline in motor transport but it had serious political and military implications too. If we focus on the year in which, both the all-British India level acts regarding the regulation of the transport were introduced i.e., 1914 and 1939, these were the years in which the first and second world war began respectively, and government concern was more with the regulating to the extent controlling the movement of people across British territory.

Transportation and economy of the particular region has direct relation with each other, as the nature of means and modes of transportation can dictate the momentum of the industrial outputs and consequently the economic profile of the region. The mobilization of raw materials from the distinct places to the processing centers or manufacturing places and further circulation of finished products to the places where it is in demand, the transportation which can fulfilled the above requirement of industry that center can experience brisk commercial activity.

The British colonial authority had constructed road fit for artillery from Bombay to Poona in 1804 itself. During British period the quality of road building methods improved and road connecting important military and economic centers were well metalled and bridged, which further smoothen the trade activity practiced in Poona city.

Railways and motor vehicle transportation increased the volume of trade in Poona though in the early 19th century nature of commodity remained more or less same as earlier the iron used to get imported in city in block shape by bullock carts from Bombay and this journey used to take time due to the hilly nature of the geography and during monsoon season the trade via Sahyadri mountain region used to get reduced, but due to the railways and metaled road construction by British, iron was brought in the sheet form and time consumed by the transportation in pre-rail days reduced significantly. This changed in trade of iron brought constructive changes in metal related industry in Poona.

Reduced time of transportation between two urban centers first influenced the trade of perishable commodities as the agricultural and related occupation like animal husbandry got encouraged as the scope of the transport system has increased and that to in less time, hence circulation of agricultural commodities like fruits and processed items like cotton and sugar experienced change in their pattern of gathering raw materials and the circulation of final product.

Railways enabled the supply of agricultural processed commodities to Bombay from Poona and this was beneficial for the people who were in the trade of such commodities as the goods flow from hinter land of Poona district to Poona city some goods were processed or manufactured and further circulated to the centers where the commodity is in demand.

As the volume of raw material brought to Poona city was enhanced and as consequence the industry also flourished metal and cotton-based industry was dominant in large scale industry.

Apart from cotton and metal industry certain altogether new industries also got established in Poona city as the raw material for them now could be available because of rapid transportation system like the biscuit manufacturing, drug and chemical, film making, printing and binding, rubber goods making.

As most of the large-scale industries functioning in the concern period in Poona city were dependent on the supply of required materials

from other regions of the world as the raw material required by film makers were brought from London to Bombay and then Bombay to Poona, same was the case with printing and binding and biscuit making as the machinery required for this industry were mainly imported from the outside of the country. In concern period all the large-scale industries were dependent on the supply of required material from other then Poona region hence the efficiency of transportation had major role to play in the establishment of such manufacturing industries in Poona because of its better connectivity with the other raw material producing or supplying centers in world.

Next major task in front of the industries was to sale the produced or manufactured commodities as whole quantity was not going to get consumed in at local level and hence the circulation of goods to the centers where they are in demand became significant process as the transport system plays key role in this aspect.

The small-scale industry at Poona, transport system changed the nature of tools used by these establishments bakeries used to work with the oven imported from foreign countries though it was one time activity and only two such establishments were there in Poona during concern time period.

Flour mills imported their machinery from Bombay, and then building material supply and dying and printing industry were also related to the transport system. Most of the small-scale industries used to get their daily required raw material locally and the circulation was also confined to Poona district or adjoining districts. Even the human resource required for these industries were mainly belonged to the adjoining regions, but this very nature of small-scale industry was in way beneficial for the growth of transportation in the Poona city as the goods or person if belonged to the nearby region from the working area that person's frequency of travel increased. Small scale industry gave impetus to the development of intercity or inter town transport facilities.

Poona city experienced industrial development and flourish as commercial center this led to a rise in population of city in concern time

period as the industries created employment opportunities which could not be satisfied at local level hence the inflow of population from the adjoining district took place and this resulted in growth of multicultural nature of Poona's society. Apart from industrial reasons for the migration of people to Poona, education was also major cause for an influx of people from different regions to Poona city.

Poona since Peshwa period was major center of learning but the British era experienced the shift in the nature of education taught at the educational institute in Poona. Modern subjects like mathematics, natural sciences and vocational courses were given impetus from ruling authority. As Poona was well connected with different towns within district and region through road transport, it made convenient for academic aspirant to migrate to Poona. Transportation facilities created opportunity for the people who were themselves enthusiastic to get education could receive it in Poona.

Transportation of goods and people is not the only function that transport system performed but the mobilization of people through thoughts and ideas were more significant in concern time period as getting education is only one side of coin and implementing or inculcation of modern values in routine life is real education. Transportation facilities not only moved the people but also mobilized the masses through ideas that travelled with the people and goods.

It is not necessary that every time the person should present at the site of change but the thought process that invoked common people to have different perspective to look at a particular incident is more crucial one and the newspaper were catering this need of society. Circulation of newspapers may concern to social or economic or political issues or attempt to bring awareness about the conditions in which the large section of India society was living. Transport system played instrumental role in it.

Changes in the population composition of Poona city and work of educational institute created conducive atmosphere for the social

reform movement which spread because of the sheer efforts of devoted personalities and means of transportation.

Transport facility across British India also served as vehicle for bringing people together against the political oppression of colonial authority. As different corners of the country got connected and large section of the population was convinced that British colonial policies are the cause for the hardship that Indian society was undergoing in economic and political sphere. Improved transportation system encouraged the emergence of regional political organization like Sarvajanik Sabha in Poona city.

The formation of Indian National Congress in 1885, all India level political organization, the first congress session was supposed to be held at Poona in 1885 as Poona City's railway and road connectivity was convenient hence the location was chosen by the congress as the leaders from all over the country going to reach at Poona in the month of December of the same year but due to spread of epidemic in Poona city just before the session forced congress leaders to shift their session to Bombay.

This incident was important though the session could not take place at Poona but it showed that Poona's potential in conducting all India level meet of leaders since the railways and road connecting Poona by the last quarter of 19th century had fairly developed to cater the needs of the political organization like Indian National Congress. Better transport system encouraged the personalities like Lokmanya Tilak, Bal Krishna Gokhale to increase their scope of political activity by reaching to the different corners and section of India.

Revolutionaries were also got benefited by the transport facility as the means and modes of transportation allowed them required mobility from one place to another and plan their activities.

Establishment of local self-government i.e., Poona Municipality in 1857, though the actual work began in 1858, played crucial role in developing and maintaining the transport system within the municipal limit as the motor vehicle Act of 1914 and 1939 had given adequate

power to the provincial and local governments to regulate the transport under their jurisdiction this helped in the quality of roads constructed as well as maintained in the Poona City.

In 1934 more superior surface road was constructed in Poona city using asphalt method of road building, and then staff for the road maintenance was created to keep the roads clean and water them. Poona municipality played crucial role or the local self-government to regulate the road transport in city as well as the transportation practiced via Poona city.

Transportation is the basic requirement of the human society to progress and to acquire knowledge. Exchange of ideas and information can bring development in the human society and transportation served as vehicle for this change. Means and modes of transportation and their nature dominates the economic progress of the region as well as it plays significant role in social and political spheres of life of a country as the centers which are well connected and having employment opportunities going to have a multi-cultural identity or nature, this encourages the modern values and exchange of knowledge, this can collectively serve best to the development of the humans. Transportation plays its role in almost all spheres of human life in one or the other way hence it became significant subject of study.

Urbanization is the manifestation of human desire and ability to control and command environment. Accessibility is precise expression of urban environment hence urban area is that facilitate accessibility to available.

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